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March 29, 2002

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Honorable Vernon A. Williams Secretary Surface Transportation Board 1925 K Street, N.W. Room 700 Washington, D. C. 20423

205089

RE:

Louis E. GITOMER

Of COUNSEL

(202) 466-6532

Docket No. AB-55 (Sub-No. 615X), CSX Transportation, Inc.—Discontinuance Exemption—(Between East of Memphis and Cordova) in Shelby County, Tennessee

Dear Secretary Williams:

Enclosed are the original and 10 copies of a Petition for Exemption for discontinuance in the above-entitled proceeding and a check for the filing fee of \$4,400. Also enclosed are three computer diskettes in containing the Petition.

Please time and date stamp the additional copy of this letter, petition, and motion and return it with our messenger. Thank you for your assistance.

If you have any questions, call or email me.

ENTERED
Office of the Secretary

MAR 29 2002

Part of Public Record

Louis E. Gitomer

Attorney for CSX Transportation, Inc.

Enclosures

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SURFACE TRANSPORTATION BOARD **FEE RECEIVED** 

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SURFACE TRANSPORTATION BOARD

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# ORIGINAL

# BEFORE THE SURFACE TRANSPORTATION BOARD

DOCKET NO. AB-55 (Sub-No. 615X)

CSX TRANSPORTATION, INC.
--DISCONTINUANCE EXEMPTION-(BETWEEN EAST OF MEMPHIS AND CORDOVA)
IN SHELBY COUNTY, TENNESSEE



PETITION FOR EXEMPTION

Natalie S. Rosenberg, Esq. CSX Transportation, Inc. 500 Water Street Jacksonville, FL 32202 (904) 359-1253

Louis E. Gitomer, Esq. Ball Janik, LLP 1455 F Street, NW, Suite 225 Washington, DC 20005 (202) 638-3307

Attorneys for: CSX TRANSPORTATION, INC.

Dated: March 29, 2002

# BEFORE THE SURFACE TRANSPORTATION BOARD

DOCKET NO. AB-55 (Sub-No. 615X)

CSX TRANSPORTATION, INC.
--DISCONTINUANCE EXEMPTION-(BETWEEN EAST OF MEMPHIS AND CORDOVA)
IN SHELBY COUNTY, TENNESSEE

### PETITION FOR EXEMPTION

CSX Transportation, Inc. ("CSXT") petitions the Surface Transportation Board ("STB") to exempt, under 49 U.S.C. § 10502, CSXT's discontinuance of service over a 12.24-mile rail line from the prior approval requirements of 49 U.S.C. § 10903.

## PROPOSED TRANSACTION

CSXT proposes to discontinue service over the 12.24-mile rail line portion of its Midwest Region, Nashville Division, Memphis Terminal between milepost ONI 222.9, east of Memphis, TN and milepost ONI 210.66 near Cordova, TN, at the end of the line (the "Line"), all in Shelby County, TN. The Line traverses Zip Codes 38111, 38112, 38117, 38120, 38122, and 38018.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> CSXT's petition to exempt its abandonment of the Line, plus an additional 1.10 miles, was denied in *CSX Transportation, Inc.—Abandonment Exemption—(Between Memphis and Cordova) in Shelby County, TN*, STB Docket No. AB-55 (Sub-No. 590X) (STB served December 12, 2001) ("*AB-55 (Sub-No. 590X)*"). Pursuant to the Board's statement at pages 5 and 6 of that decision, CSXT has decided to file a petition for exemption for this portion of the line.

A map of the Line is attached as Exhibit A. The Environmental Report is in Exhibit B and the Historic Report is in Exhibit C.<sup>2</sup> Revenue and cost data prepared by Ms. Ellen Preslar is in Exhibit D. The verified statement of Leeroy Davidson, Regional Engineer of Structures for CSXT describing the bridges on the Line and the cost to repair them is in Exhibit E. The verified statement of Donnie Moore, Trainmaster of the Memphis Subdivision describing the operation of the Line is in Exhibit F. Exhibit G contains the traffic analysis prepared by Mr. Noel L. Perry, Director CSXT Sales & Marketing. Letters from the City of Memphis, Shelby County, and Edmonds Materials supporting the abandonment are in Exhibit H. Exhibit I contains the Federal Register notice, Exhibit J contains the certificate of publication, and Exhibit K contains the certificate of service.

Based on information in CSXT's possession, the Line does not contain any federally granted right-of-way. Any documentation in CSXT's possession concerning title will be made available to those requesting it.

# THE TRAFFIC ON THE LINE WILL NOT SUPPORT CONTINUED RAIL OPERATIONS

CSXT served three customers on the Line: Jimmy Whittington Lumber Company

("Whittington Lumber"), Edmonds Material, Inc. ("Edmonds"), and Memphis Light Gas and

Water ("Memphis Light") (collectively the "Customers"). To serve all three Customers, CSXT

<sup>&</sup>lt;sup>2</sup> CSXT is using the Environmental Report and Historic Report that were prepared and filed in *AB-55 (Sub-No. 590X)* since they are less than one year old and encompassed the Line within the analysis. CSXT requests that the Board and its Section of Environmental Analysis adopt the Environmental Assessment that was served on October 23, 2001, but modify the EA to exclude the three conditions related to potential salvage operations since CSXT is only seeking authority to discontinue service here and not abandon the Line.

must operate over six bridges on the Line, all of which are in need of substantial repair.<sup>3</sup> The location of the Line near the Memphis terminal requires a difficult and costly operation to reach the Line from Leewood Yard. (*See* Verified Statement of Donnie Moore). The combination of these factors, along with the transportation alternatives available to the Customers has caused CSXT to seek this discontinuance of service.

CSXT will demonstrate that it is not economical to continue to operate the Line. The traffic on the Line does not cover the cost of operation. The bridges on the Line require substantial repair and rebuilding. The Customers on the Line have transportation alternatives.

1. The traffic on the Line does not cover the cost of operation.

Ellen Preslar, the Senior Manager – Costing in the Cost & Economic Analysis department of CSXT prepared revenue and cost data for the Line in conformity with 49 CFR §1152.36. This analysis (See Exhibit D) shows the following:

Base	Forecast	Subsidy
Year	Year	Year
\$244,655	\$259,202	\$264,051
\$291,123	\$335,071	\$336,738
·	-	\$881,000
· -	\$110,011	\$110,011
\$ 46,468	\$ 75,869	\$ 72,687
·	\$185,880	-
· <del>-</del>	-	\$1,063,700
	Year \$244,655 \$291,123	Year Year  \$244,655 \$259,202 \$291,123 \$335,071  - \$110,011 \$46,468 \$75,869

In the Base Year (calendar year 2000) CSXT lost \$46,468 operating the Line. It is projected that for the Forecast Year (the year beginning March 1, 2002 and using year 2000 traffic) CSXT's

<sup>&</sup>lt;sup>3</sup> The condition of the first bridge on the Line caused CSXT to impose an embargo of the Line on March 1, 2001 in order to avoid unsafe operations. The condition of the bridge at milepost ONI 223.3, which is not included in this request for discontinuance exemption, was another reason for the embargo.

avoidable loss and return on value will total \$185,880, and the estimated Subsidy Year loss is \$1,063,700.

Traffic on the Line has been declining, as shown in Exhibit G. In 1999 there were 455 cars transported on the Line. Traffic on the Line fell to 274 cars in 2000 and 11 cars for the first two months of 2001.<sup>4</sup> Since the embargo there has been no traffic on the Line. As traffic has declined, CSXT's losses have grown.

Operation over the Line is complicated because in order to reach the Line after leaving Leewood Yard, the train must enter a portion of the jointly owned CSXT-CNIC double-track main line that handles about 40 trains per day. The train serving the Line must wait until the track is clear. A reverse move back over the double main is also necessary, resulting in an additional delay. Service to Edmonds and Whittington Lumber is made by a three-person crew once a week and usually takes from six to eight hours. As stated by Mr. Moore in Exhibit F the "moves are awkward and time-consuming."

2. The bridges on the Line require substantial repair and rebuilding. <sup>5</sup>

There are six bridges on the Line, all in need of repair and soon rebuilding. Mr.

Davidson, CSXT's Regional Engineer of Structures who is responsible for the inspection, repair and rebuilding of all bridge structures in CSXT's Midwest Region, inspected the bridges on the Line in January 2001 with his assistants. In March of 2002, he reviewed that report and confirmed his previous conclusions. On March 1, 2001 the Line was embargoed because the first bridge on the Line was unsafe to operate and would require three to six months to repair. Mr.

Davidson describes all six bridges in detail in his verified statement (Exhibit E). A summary of

<sup>&</sup>lt;sup>4</sup> Annualized there would have been about 66 cars in 2001.

the costs to repair and rebuild each bridge is in the following table. Further details are in Mr. Davidson's verified statement.

BRIDGE REPAIR AND REBUILDING COSTS

BRIDGE NUMBER	MILEPOST	REPAIR COST	REBUILD COST
NUMBER			
1	218.5	\$ 485,000	\$4,446,000
2	218.4	\$ 38,000	\$ 540,000
3	218.3	\$ 115,000	\$ 756,000
4	218.1	\$ 45,000	\$ 576,000
5	214.9	\$ 108,000	\$ 216,000
6	211.0	\$ 90,000	\$ 147,000
TOTAL		\$ 881,000	\$6,681,000

To return the Line to service, CSXT would have to spend \$485,000 to repair Bridge 1. Such expenditure is not justified for a Line that lost \$46,468 in the Base Year. Repair of the bridges is a temporary measure. Mr. Davidson indicates that even if CSXT spends \$881,000 to repair the six bridges, by 2007 CSXT will need to begin rebuilding the bridges at an additional cost of \$6,681,000.

3. The Customers on the Line have transportation alternatives.

Whittington Lumber is located at milepost ONI-211.90, east of five of the bridges, where it receives shipments of lumber. Whittington Lumber received 41 carloads in 1999, 38 carloads in 2000, and one carload through March 1, 2001 at its Cordova facility. It has another facility where it receives lumber in Memphis. Whittington Lumber has agreed to use its Memphis facility instead of the Cordova facility and to use Leewood Yard for any occasional overflow. Based on discussions with Whittington Lumber and its available service alternative, CSXT believes that Whittington Lumber will not oppose the proposed discontinuance of service.

<sup>&</sup>lt;sup>5</sup> The bridges have been numbered for this proceeding beginning with the bridge at the beginning of Line and continuing eastward to the end of the Line for ease of understanding.

Edmonds is located at milepost ONI-211.30, east of five of the bridges, where it receives shipments of brick. Edmonds received 414 carloads in 1999, 235 carloads in 2000, and 10 carloads through March 1, 2001. Edmonds has agreed to support the abandonment. See its letter in Exhibit H.

Memphis Light is located at milepost ONI-210.66, east of all six of the bridges and at the end of the Line, where it occasionally receives electric transformers. Memphis Light received 0 carloads in 1999, one carload in 2000, and 0 carloads through March 1, 2001. Memphis Light has unloaded its transformers at another location in the Memphis area since one of the bridges on its siding was taken out of service. CSXT has informed Memphis Light that it can unload the transformers in Leewood Yard.

CSXT has made available to all of its Customers on the Line a transload facility in Leewood Yard. Not only is this facility less expensive for CSXT to operate than the Line, but it should also result in more efficient service to the Customers. They will no longer have to wait for a train to navigate the obstacles necessary to reach their facilities on the Line.

In addition to the new transload facility, each of the Customers is located near Interstate Highways 40 and 240. Other major highways are also in the area. See the map in Exhibit A. During the embargo, all of the Customers have made extensive use of truck service.

#### 4. Summary.

The overriding factor that warrants an exemption for the discontinuance of service over the Line is the need to repair and rebuild the six bridges on the Line. Without the costs of the bridges the Line still loses money, but once the bridge costs are introduced to the financial calculus of the Line, it is clear that the traffic on the Line cannot financially support the Line.

In order to reach the Customers, CSXT must cross Bridge #1. Bridge #1 is unsafe and out-of-service. It will cost CSXT \$485,000 to repair Bridge #1 in order to be able to reinstitute service to its Customers, a short-term solution. To rebuild Bridge #1, CSXT must spend \$4,446,000. As Mr. Davidson has testified, it is not just a question of CSXT spending \$485,000 to repair Bridge #1 and then another \$3,961,000 to rebuild it. CSXT will have to spend \$485,000 to repair Bridge #1 and then another \$4,446,000 to rebuild it within five years. If there were sufficient traffic to justify repair, it would make more economic sense for CSXT to rebuild Bridge #1 and save the \$485,000 repair cost. But, the level of traffic, the costs of operation and the alternate service that the Customers use today all militate against either expenditure.

Moreover, Whittington Lumber and Edmonds, the last active customers on the Line, are located east of five of the bridges. The traffic they generate does not warrant the repair of five bridges for \$791,000 or their rebuilding for \$6,534,000, especially when CSXT has arranged for alternative service with these customers.

CSXT incurred a loss in the last full year of operation and projects growing losses into the future. In addition to operating losses, CSXT faces bridge repair costs of \$881,000 and bridge rebuilding costs of \$6,681,000 on the Line, neither of which is economically justified.

# ARGUMENT SUPPORTING THE DISCONTINUANCE OF SERVICE

CSXT seeks an exemption under 49 U.S.C. § 10502 from the applicable requirements of 49 U.S.C. § 10903 in order to discontinue service over this lightly used 12.24-mile line of railroad.

Under 49 U.S.C. § 10502, the STB must exempt a transaction from regulation when it finds that:

- (1) regulation is not necessary to carry out the rail transportation policy of 49 U.S.C. § 10101; and
  - (2) either:
    - (a) the transaction is of limited scope, or
    - (b) regulation is not necessary to protect customers from the abuse of market power.

The legislative history of Section 10502 reveals a clear Congressional intent that the STB should liberally use its exemption authority to free certain transactions from the administrative and financial costs associated with continued regulation. In enacting the Staggers Rail Act of 1980, Pub. L. No. 96-488, 94 Stat. 1895, Congress encouraged the STB's predecessor agency to liberally use the expanded exemption authority under former Section 10505:

The policy underlying this provision is that while Congress has been able to identify broad areas of commerce where reduced regulation is clearly warranted, the Commission is more capable through the administrative process of examining specific regulatory provisions and practices not yet addressed by Congress to determine where they can be deregulated consistent with the policies of Congress. The conferees expect that, consistent with the policies of this Act, the Commission will pursue partial and complete exemption from remaining regulation.

H.R. Rep No. 1430, 96 the Cong. 2d Sess. 105 (1980). See also *Exemption From Regulation--Boxcar Traffic*, 367 I.C.C. 424, 428 (1983), vacated and remanded on other grounds, *Brae Corp. v. United States*, 740 F.2d 1023 (D.C. Cir 1984). Congress reaffirmed this policy in the conference report accompanying the ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803, which re-enacted the rail exemption provision as Section 10502. H.R. Rep. No. 422, 104th Cong., 1st Sess. 168-69 (1995).

A. The Application of 49 U.S.C. § 10903 Is Not Necessary to Carry Out the Rail Transportation Policy

Detailed scrutiny of this transaction is not necessary to carry out the rail transportation policy. An exemption would minimize the unnecessary expense associated with the preparation and filing of a formal discontinuance of service application, expedite regulatory decisions and reduce regulatory barriers to exit. 49 U.S.C. § 10101 (2) and (7). By discontinuing service over the Line, CSXT will be able to: (1) avoid losses of \$72,, 687 in the Forecast Year; (2) eliminate bridge repair costs of \$881,000 within the next five years and bridge rebuilding costs of \$6,681,000 beginning in 2007; and (3) avoid operations over a very busy double tracked main line to transport less than 274 cars per year. Granting this exemption, therefore, fosters sound economic conditions and encourages efficient management by permitting the rationalization of an unnecessary rail line. 49 U.S.C. § 10101 (3), (5) and (9). Other aspects of the rail transportation policy are not adversely affected. For example, competition and the continuation of a sound rail transportation system are not affected since the public will not be deprived of any needed rail services.

## **B.** This Transaction Is Of Limited Scope

The proposed transaction is of limited scope. CSXT seeks to discontinue service over its 12.24-mile line. The length of the Line, its limited geographic area (one county in one State), and the limited use made of the Line, all demonstrate the limited scope of CSXT's proposed abandonment.

#### C. This Transaction Will Not Result In An Abuse Of Market Power

There is no overhead freight traffic on the Line. The Customers on the Line have alternate transportation service available, whether it is through a transload facility offered by CSXT, another local transload facility, or motor carrier service. The Customers have found alternate truck service to be a viable alternative mode of transportation during the embargo.

As shown on Exhibit A, a network of roadways and highways crisscrosses the area surrounding the Line. All of the Customers are located on local highways. Interstate 40 and 240 just about bisect the Line and are readily accessible, with I-40 nearly parallel to the entire length of the Line. The Customers' actions show that there is alternate transportation available that they are using in lieu of the Line. Discontinuance of service over the Line will not leave the Customers without reasonable transportation alternatives since they are using those alternatives today. With transportation alternatives available, CSXT's discontinuance of service over the Line will not result in an abuse of market power.

# ENVIRONMENTAL REPORT

The Environmental Report containing the information required by 49 C.F.R. § 1105.7 is attached hereto as Exhibit B.

## HISTORIC REPORT

The Historic Report containing the information required by 49 C.F.R. § 1105.8 is attached hereto as Exhibit C.

# FEDERAL REGISTER NOTICE

A draft Federal Register notice is attached hereto as Exhibit I.

## LABOR PROTECTION

The interests of railroad employees of CSXT who may be adversely affected by the proposed discontinuance of service will be adequately protected by the labor protective conditions in *Oregon Short Line R. Co.--Abandonment--Goshen*, 360 I.C.C. 91 (1979).

# CONCLUSION

Application of the regulatory requirements and procedures of 49 U.S.C. § 10903 is not required to carry out the rail transportation policy set forth in 49 U.S.C. § 10101, as previously shown. Nor is STB regulation required to protect customers from the abuse of market power. Moreover, this discontinuance of service is of limited scope. Accordingly, CSXT respectfully urges the STB to grant the proposed discontinuance of service of the 12.24-mile Line.

Respectfully Submitted,

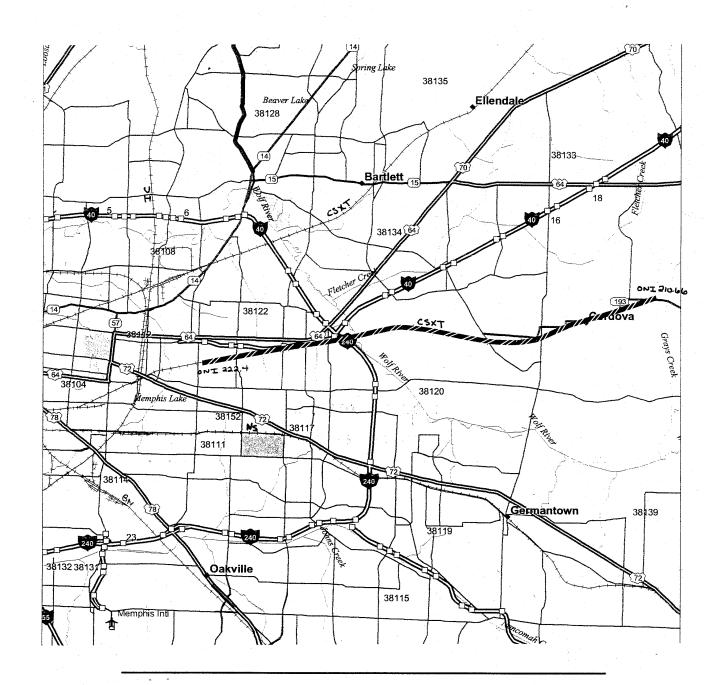
Natalie S. Rosenberg, Esq. CSX Transportation, Inc. 500 Water Street Jacksonville, FL 32202 (904) 359-1253

Louis E. Chomer, Esq. Ball Jank, LLP 1455 F Street, NW, Suite 225 Washington, DC 20005 (202) 638-3307

Attorneys for: CSX TRANSPORTATION, INC.

Dated: March 29, 2002

# EXHIBIT A



# CSX TRANSPORTATION, INC.

# STATE OF TENNESSEE

11.74 Miles of Track to be Abandoned 11.74 Miles

# **EXHIBIT B**

	ENVIRONMENTAL REPORT
·	CSX TRANSPORTATION, INC.
	CORDOVA TO MEMPHIS SHELBY COUNTY, TENNESSEE
	DOCKET AB-55 (SUB-N0. 590X)

The following information is provided in accordance with 49 C.F.R. Section 1105.7:

# (1) PROPOSED ACTION AND ALTERNATIVES

Describe the proposed action, including commodities transported, the planned disposition (if any) of any rail line and other structures that may be involved, and any possible changes in current operations or maintenance practices. Also describe any reasonable alternatives to the proposed action. Include a readable, detailed map and drawings clearly delineating the project.

CSX Transportation, Inc. (CSXT) proposes to abandon 13.34 miles of its rail line between Cordova and Memphis in Shelby County, Tennessee. The cost of providing transportation exceeds the revenues generated by the traffic on this line. The principal commodities transported are lumber and brick.

Abandonment of this line will result in the removal of the rail, including crossties, and operations and maintenance of this line will cease.

The only alternative would be not to abandon and to pass the operating loss and capital costs of retaining the line to all other CSXT customers. This would not be a prudent utilization of carrier resources.

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Two maps which delineate the proposed project are attached. (See Attachments 1 and 2.)

#### (2) TRANSPORTATION SYSTEM

Describe the effects of the proposed action on regional or local transportation systems and patterns. Estimate the amount of traffic (passenger or freight) that will be diverted to other transportation systems or modes as a result of the proposed action.

There is no CSXT passenger traffic on this line.

Approximately 240 carloads (annually) of brick, formerly transported over this line by CSXT are likely to be transported by truck in the future. We anticipate approximately 300 carloads of lumber will be delivered to Memphis by rail and trucked locally.

#### (3) AND USE

(i) Based on consultation with local and/or regional planning agencies and/or a review of the official planning documents prepared by such agencies, state whether the proposed action is consistent with existing land use plans. Describe any inconsistencies.

The City of Memphis and the Shelby County Planning Commission were contacted seeking information as to their current land use plans for the project area. Attached are responses from the City and the County advising they are supportive of the potential abandonment. They believe that the abandonment will provide significant improvement in safety, traffic issues and an overall quality of life in the area. (See Attachments 3 and 4.)

(ii) Based on consultation with the U. S. Soil Conservation Service, state the effect of the proposed action on any prime agricultural land.

On April 19, 2001, the Natural Resources Conservation Service for Shelby County advised the proposed action would have no adverse effects on the prime farmland adjacent to this section of rail line. (See Attachment 5.)

(iii) If the action affects land or water uses within a designated coastal zone, include the coastal zone information required by 1105.9.

The State of Tennessee does not have a Coastal Zone Management Program.

(iv) If the proposed action is an abandonment, state whether or not the right of way is suitable for alternative public use under 49 U.S.C. 10906 and explain why.

The properties proposed to be abandoned may be suitable for other public purposes, but may be subject to reversionary interests that may affect transfer of title for other than rail purposes.

## (4) ENERGY

(i) Describe the effect of the proposed action on transportation of energy resources.

The proposed action will have no effect on the transportation of energy resources.

(ii) Describe the effect of the proposed action on recyclable commodities.

The proposed action will have no effect on the movement and/or recovery of recyclable commodities.

(iii) State whether the proposed action will result in an increase or decrease in overall energy efficiency and explain why.

The proposed action will not result in an increase or decrease in overall energy efficiency.

(iv) If the proposed action will cause diversions from rail to motor carriage of more than: (A) 1,000 rail carloads a year; or (B) an average of 50 rail carloads per mile per year for any part of the affected line, quantify the resulting net change in energy consumption and show the data and methodology used to arrive at the figure given.

There will be no diversion of rail traffic to motor carriage in excess of the above thresholds.

# (5) AIR

(i) If the proposed action will result in either: (A) an increase in rail traffic of at least 100% (measured in gross ton miles annually) or an increase of at least eight trains a day on any segment of rail line affected by the proposal, or (B) an increase in rail yard activity of at least 100% (measured by carload activity), or (C) an average increase in truck traffic of more than 10% of the average daily traffic or 50

vehicles a day on any affected road segment, quantify the anticipated effect on air emissions.

The above thresholds will not be exceeded.

(ii) If the proposed action affects a class I or non-attainment area under the Clean Air Act; and will it result in either: (A) an increase in rail traffic of a least 50% (measured in gross ton miles annually) or an increase of at least three trains a day on any segment of rail line, or (B) an increase in rail yard activity of a least 20% (measured by carload activity), or (C) an average increase in truck traffic of more than 10% of the average daily traffic or 50 vehicles a day on a given road segment, then state whether any expected increased emissions are within the parameters established by the State Implementation Plan.

The above thresholds will not be exceeded.

(iii) If transportation of ozone depleting materials (such as nitrogen oxide and freon) is contemplated, identify: the materials and quantity, the frequency of service; safety practices (including any speed restriction); the applicant's safety record (to the extent available) on derailments, accidents and spills; contingency plans to deal with accidental spills; and the likelihood of an accidental release of ozone depleting materials in the event of a collision or derailment.

Not applicable.

# (6) NOISE

If any of the thresholds identified in item (5)(i) of this section are surpassed, state whether the proposed action will cause: (i) an incremental increase in noise levels of three decibels Ldn or more, or (ii) an increase to a noise level of 65 decibels Ldn or greater. If so, identify sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities, and nursing homes) in the project area, and quantify the noise increase for these receptors if the thresholds are surpassed.

The above thresholds will not be exceeded.

# (7) SAFETY

(i) Describe any effects of the proposed action on public health and safety (including vehicle delay time at railroad grade crossings).

The proposed abandonment will have no detrimental effects on public health and safety. The removal of 23

grade crossings and the associated signs and structures will enhance public safety by eliminating distractions to vehicular traffic crossing the line.

(ii) If hazardous materials are expected to be transported, identify: the materials and quantity; the frequency of service; whether chemicals are being transported that, if mixed, could react to form more hazardous compounds; safety practices (including any speed restrictions); the applicant's safety record (to the extent available) on derailments, accidents and hazardous spills; the contingencylans to deal with accidental spills; and the likelihood of an accidental release of hazardous materials.

Not applicable.

(iii) If there are any known hazardous waste sites or sites where there have been known hazardous material spills on the right of way, identify the location of those sites and the types of hazardous materials involved.

Applicant's records do not indicate any hazardous waste sites on this line segment.

#### (8) BIOLOGICAL RESOURCES

(i) Based on consultation with the U. S. Fish and Wildlife Service, state whether the proposed action is likely to adversely affect endangered or threatened species or areas designated as a critical habitat, and if so, describe the effects.

On May 10, 2001, the United States Fish and Wildlife Service, Cookeville, TN, advised that their records do not indicate any federally listed or proposed endangered or threatened species are within the project area. (See Attachment 6.)

(ii) State whether wildlife sanctuaries or refuges, National or State parks or forests will be affected, and describe any effects.

Based upon Applicant's review of the area, the line is not within any wildlife sanctuaries or refuges, National or State parks or forests.

# (9) WATER

(i) Based on consultation with State water quality officials, state whether the proposed action is consistent with applicable Federal, State or

### local water quality standards. Describe any inconsistencies.

On April 24, 2001, the Tennessee Department of Environment and Conservation advised that "removal of the crossties will disturb the underlying roadbed because removing the crossties is considered to be a construction Activity." (See Attachment 7.)

Any necessary permits or applications will be obtained as well as compliance with conditions or procedures required by regulatory agencies.

(ii) Based on consultation with the U. S. Army Corps of Engineers, state whether permits under Section 404 of the Clean Water Act (33 U.S.C. 1344) are required for the proposed action and whether any designated wetlands or 100-year flood plains will be affected. Describe the effects.

On April 19, 2001, the U.S. Army Corps of Engineers, Memphis, Tennessee, advised that a permit for the proposed project is not required. (See Attachment 8.)

Applicant is not aware of any designated wetlands or 100year flood plains within the proposed project area.

(iii) State whether permits under Section 402 of the Clean Water Act (33 U.S.C. 1342) are required for the proposed action. (Applicants should contact the U.S. Environmental Protection Agency or the state environmental protection or equivalent agency if they are unsure whether such permits are required).

On April 2, 2001, Applicant addressed the Tennessee Department of Environment and Conservation, Nashville, Tennessee, and the U. S. Environmental Protection Agency, Region 4, Atlanta, Georgia, seeking information regarding this statement. Their responses are included with this report as Attachments 7 and 9.

Upon receiving abandonment authority, removal of material will be accomplished by use of the right of way for access, along with existing public and private crossings, and no new access roads are contemplated. We do not intend to disturb any of the underlying roadbed or perform any activities that would cause sedimentation or erosion of the soil, and do not anticipate any dredging or use of fill in the removal of the track material. The crossties and/or other debris will be transported away from the rail line and will not

CSX Transportation, Inc. Environmental Report Docket AB-55 (Sub. No. 590X) Page 7 of 7

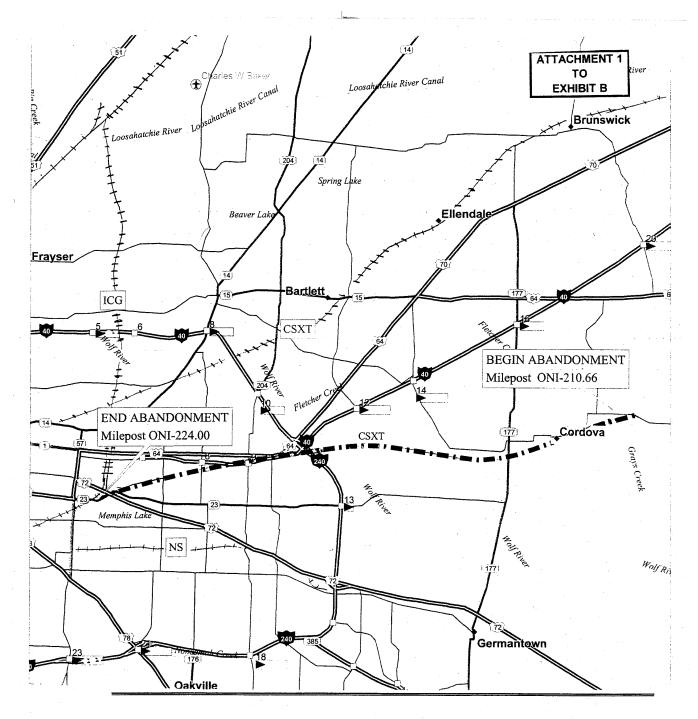
be discarded along the right of way nor be placed or left in streams or wetlands, or along the banks of such waterways. Also, during track removal, appropriate measures will be implemented to prevent or control spills from fuels, lubricants or any other pollutant materials from entering any waterways.

Applicant will obtain any necessary permits required under Section 402 of the Clean Water Act (33 U.S.C. 1342).

#### 10. MITIGATION

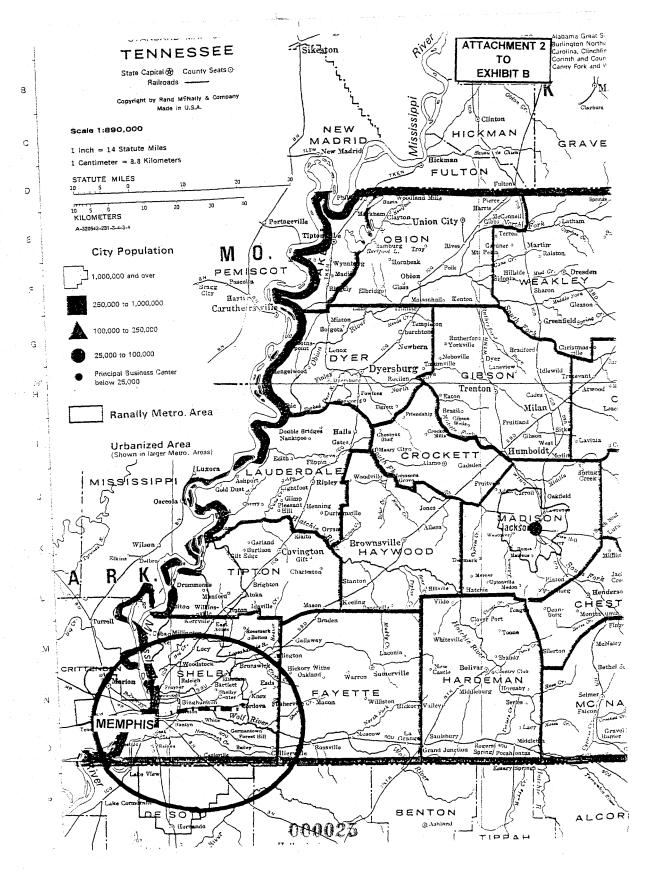
Describe any actions that are proposed to mitigate adverse environmental impacts, indicating why the proposed mitigation is appropriate.

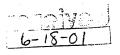
To mitigate any adverse environmental impact in the project area, Applicant will comply with State and Federal regulations and obtain any necessary permits required.



CSX TRANSPORTATION, INC PORTION OF TENNESSEE

13.34 miles track to be abandoned 000024







DR. WILLIE W. HERENTON - Mayor RICK MASSON- Chief Administrative Officer DIVISION OF ENGINEERING JOHN F. CONROY - City Engineer

ATTACHMENT 3 TO EXHIBIT B

June 15, 2001

Mr. James Derwin (J-200) CSX Transportation Inc. 500 Water Street Jacksonville, FL 32202

Re: Abandonment of Rail Line Between Memphis and Cordova, Tn

Dear Mr. Derwin:

We have been advised that CSX is considering the abandonment of 13.34 miles of rail line between Memphis and Cordova, Tennessee. Virtually the entire length of rail being considered for abandonment is with the Memphis City limits and we are very interested in and supportive of the potential abandonment.

We are supportive for a number of reasons. The greatest benefit, from our perspective, is one of increased safety resulting from the elimination of multiple grade crossings, some of which are at acute angles. Another positive impact will be the increased continuity of some major roads, which now have offsets in their alignment because of the difficulty involved in trying to cross the line. Finally, the abandonment and relinquishing of the right-of-way would help greatly in keeping an important road improvement project from impacting a major park.

We believe the abandonment provides significant improvement in safety, traffic issues, and overall quality of life in that area and encourage you to expeditiously proceed. It is understood that you may include this letter in your filing to the Surface Transportation Board regarding the abandonment.

Sincerely,

John Conroy, P.E.

City Engineer

c: Wain Gaskins, Administrator of Transportation Planning and Design





Jim Rout, Mayor

July 2, 2001

Mr. James Derwin (J-200) CSX Transportation, Inc. 500 Water Street Jacksonville, FL 32202

RE: Abandonment of Rail Line Between

Memphis and Cordova, TN

Dear Mr. Derwin:

I have been advised by my Office of Planning and Development for Shelby County that CSX Transportation, Inc. is considering abandonment of 13.34 miles of its rail between Cordova and Memphis in Shelby County, Tennessee. We have coordinated with City officials and are supportive in this action for the same reasons listed in their letter to your office dated June 15, 2001 subject as referenced above. From the County viewpoint, the abandonment and relinquishing of the right of way will greatly assist the County in improving and significantly lessening impacts of a major road improvement.

We also believe the abandonment provides a significant enhancement in safety, traffic issues, and overall quality of life in that significant park area and encourage you to proceed as expeditiously as possible. We understand that you will include this letter in your filing to the Surface Transportation Board regarding the planned abandonment.

Sincerely

Mayor

CC: Louise Mercuro, Office of Planning and Development

Ted Fox, Director of Public Works John Conroy, City Engineer

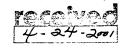
Mike Oakes, County Engineer



United States Department of Agriculture Natural Resources Conservation Service Jackson Division Offi 235 Oil Well Road Jackson, Tennessee 38305

ATTACHMENT 5 TO EXHIBIT B

April 19, 2001



Nancy B. Reynolds CSX Transportation 500 Water street-J200 Jacksonville, FL 32202

Re: Rail Line Abandonment, Shelby County, Tennessee

Dear Ms. Reynolds

As requested we have reviewed your request for a prime farmland impact rating on the abandonment of the rail line between Cordova and Memphis, in Shelby County, Tennessee. We see no adverse affects this action would have on the prime farmland adjacent to this section of rail line.

If you have any additional questions please contact me at (731) 668-0700.

Sincerely,

Charles L. Davis Soil Scientist



# United States Department of the Interior

ATTACHMENT 6 TO EXHIBIT B

FISH AND WILDLIFE SERVICE 446 Neal Street

Cookeville, TN 38501

DEGEIVED

May 10, 2001

Ms. Nancy B. Reynolds CSX Transportation 500 Water Street - J200 Jacksonville, Florida 32202

Dear Ms. Reynolds:

Thank you for your letter and enclosure of April 2, 2001, regarding the proposed abandonment of 13.34 miles of rail line (Milepost ONI-224.00 to ONI-210.66) in Shelby County, Tennessee. Fish and Wildlife Service (Service) personnel have reviewed the information submitted and offer the following comments.

Information available to the Service does not indicate that wetlands exist in the vicinity of the proposed project. However, our wetlands determination has been made in the absence of a field inspection and does not constitute a wetlands delineation for the purposes of Section 404 of the Clean Water Act. The Corps of Engineers should be contacted if other evidence, particularly that obtained during an on-site inspection, indicates the potential presence of wetlands.

Endangered species collection records available to the Service do not indicate that federally listed or proposed endangered or threatened species occur within the impact area of the project. We note, however, that collection records available to the Service may not be all-inclusive. Our data base is a compilation of collection records made available by various individuals and resource agencies. This information is seldom based on comprehensive surveys of all potential habitat and thus does not necessarily provide conclusive evidence that protected species are present or absent at a specific locality. However, based on the best information available at this time, we believe that the requirements of Section 7 of the Endangered Species Act of 1973, as amended, are fulfilled. Obligations under Section 7 of the Act must be reconsidered if (1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or (3) new species are listed or critical habitat designated that might be affected by the proposed action.

Thank you for the opportunity to comment on this action. If you have any questions, please contact Jim Widlak of my staff at 931/528-6481, ext. 202.

Sincerely,

Lee A. Barclay, Ph.D.

Field Supervisor



ATTACHMENT 7 TO EXHIBIT B

# STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Pollution Control
6<sup>th</sup> Fl. L & C Tower
401 Church Street
Nashville, Tennessee 37243-1534
PHONE: (615) 532-0634; FAX: (615) 532-0503

April 24, 2001

H- 27- 2001

Ms. Nancy B. Reynolds Manager Line Transactions Asset Management CSX Transportation 500 water Street – J200 Jacksonville, Florida 32202

RE: Rail Line Abandonment

Dear Ms. Reynolds:

This serves to respond to your request for comment from the Division of Water Pollution Control (WPC). Based on the described actions included in your letters of March 7, 2001, and April 2, 2001, there appears to be opportunity for pollution of waters of the State of Tennessee to occur. Removing the crossties will disturb the underlying roadbed because removing the crossties is considered to be a construction activity.

Enclosed is a copy of stormwater regulations and a form to complete and return to obtain coverage for both abandonment projects. We expect that a stormwater pollution prevention plan (SWPPP) will accompany each application. Also included is a copy of the Environmental Protection Fund fees rule. The fee section that that pertains to this proposed construction activity is marked for your convenience.

Any such activity throughout the State of Tennessee is subject to the same considerations. Please advise this Division of any other construction activity that is occurring by completing a form for each project. Each project is required to obtain coverage.

If these projects have begun coverage application and applicable fees are to be submitted by May 15, 2001. Otherwise, note that a request for a stormwater construction permit, issued by WPC, has a predetermined submittal period for processing. Beginning work before obtaining coverage is a violation.

Ms. Nancy B. Reynolds April 24, 2001 Page Two

Unless materials are disposed in jurisdictional wetland or streams or construction activity occurs within jurisdictional wetlands or streams, no state water quality certification of a permit required by Section 404 of the Clean Water Act, 33 U. S. C. 1342, or an aquatic resource alteration permit (ARAP), prescribed by Section 69 – 3 – 108 of the Tennessee Water Quality Control Act, would be required. A copy of the rule pertaining to aquatic resource alteration is enclosed. Should any projects require a permit, please note that an application fee is required. Fees to obtain an aquatic resources alteration permit are marked for your convenience.

Any such activity throughout the State of Tennessee is subject to the same considerations. Please advise this Division of any other construction activity that is occurring by completing a form for each project. Each project is required to obtain coverage. If these projects have begun coverage application and applicable, fees are to be submitted by May 15, 2001. Otherwise, note that a request for an ARAP permit issued by WPC, has a predetermined submittal period for processing. Beginning work before obtaining coverage is a violation.

If you have any questions, please contact Mr. Dan Eagar, Natural Resources (ARAP) Section Manager, at (615) 532-0708, or Mr. Phil Simmons, Permits Section, Environmental Protection Specialist, at (615) 532-0358. Thank you for coordinating this work and obtaining the proper permits prior to initiating removal of the rail line.

incerely.

Jerry M. Shoemake Assistant Manager

**Enclosures** 

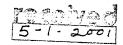
CC: Phil Stewart, WPC Manager, Chattanooga EAC
Terry Templeton, WPC Manager, Memphis EAC
Dan Eagar, WPC Natural Resources Manager
Phil Simmons, WPC Permits Section
Roosevelt Childress, EPA Water Management Division



# DEPARTMENT OF THE ARMY

MEMPHIS DISTRICT, CORPS OF ENGINEERS 167 NORTH MAIN STREET B-202 MEMPHIS, TENNESSEE 38103-1894 ATTACHMENT 8 TO EXHIBIT B

April 19, 2001



Nancy B. Reynolds CSX Transportation 500 Water Street-J200 Jacksonville, Flordia 32202

Dear Ms. Reynolds:

Regulatory Branch

This is in reference to your recent request for a jurisdictional determination concerning abandonment of 13.34 miles of rail line between Cordova and Memphis, Shelby County, Tennessee.

If the work is done as described in your letter of April 2, 2001, no permit from our office is required.

This determination is valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date.

Your cooperation with the regulatory program is appreciated. If you have questions, contact Mr. Tom Skelton at (901) 544-3468. Please refer to File No. 200147014.

Sincerely,

Larry D. Watson

Chief

Regulatory Branch

Larry D. Watson



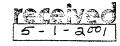
# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

ATTACHMENT 9 TO EXHIBIT B

APR 2 5 2001

Ms. Nancy B. Reynolds Manager Line Transactions Asset Management 500 Water Street Jacksonville, Florida 32202



Dear Ms. Reynolds:

This letter is in response to your letter of April 2, 2001, requesting comments from the Environmental Protection Agency (EPA) on the abandonment of a portion of CSX Transportation, Inc. rail line between Cordova and Memphis, in Shelby County, Tennessee . Our review of your description of the activities associated with this project does not indicate any immediate concerns under Section 402 of the Clean Water Act (CWA).

Please be aware that this activity would be subject to the requirements of the CWA if, in the process of dismantling the track, 5 acres or more of land are disturbed by clearing or grading and if storm water discharges from this disturbance enters a surface water by a conveyance (pipe, ditch, etc.). These considerations do not appear be applicable to your proposed action and a permit under Section 402 of the CWA would not be required. However, the State of Tennessee, Department of Environment and Conservation, has been authorized to implement the National Pollutant Discharge Elimination System (NPDES) permit program, under Section 402 of the CWA. Please rely on the response you receive from the State for a final determination in this matter.

If I can be of further assistance to you, please contact me.

Sincerely,

Roosevelt Childress, Chief

NPDES and Biosolids Permits Section

Permits, Grants and Technical Assistance

Branch

Water Management Division

cc: Paul Davis, TN Dept. of Environment and Conservation

000034



Nancy B. Reynolds -Manager-Line Transactions Asset Management 500 Water Street - J200 Jacksonville, FL 32202 Tel.: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

April 27, 2001

City of Memphis Office of Planning and Development 125 N. Main Street, Suite 450 Memphis, TN 38103

RE:

CSXT Proposed Abandonment Between Cordova and Memphis, in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X)

#### Gentlemen:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to me) would be appreciated within three weeks.

We are providing this report so that you may review the information that will form the basis for the Board's independent environmental analysis of this proceeding. Before this Report is finalized and submitted to the Board we will incorporate into it any comments that we receive from you. If any of the information is incorrect, if you believe that pertinent information is missing, or if you have any questions about the Board's environmental review process, please contact the Section of Environmental Analysis (SEA), Surface Transportation Board, Washington, DC 20423, telephone (202) 565-1545 and refer to the above Docket Number.

Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please feel free to contact me.

Very truly yours,

Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001

000035

Ms. Natalie S. Rosenberg, Counsel, CSXT, 500 Water Street-J150, Jacksonville, FL 32202



Nancy B. Reynolds
Manager-Line Transactions
Asset Management

500 Water Street - J200 Jacksonville, FL 32202 Tel.: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

April 27, 2001

Ms. Louise Mercuro
Director, Office of Planning and Development
For Shelby County
160 N. Main - Room 802
Memphis, TN 38103

RE:

CSXT Proposed Abandonment Between Cordova and Memphis, in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X)

#### Gentlemen:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to me) would be appreciated within three weeks.

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Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please feel free to contact me.

Very truly yours,

Mancy TJ. Reynolds

Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001

000036

Ms. Natalie S. Rosenberg, Counsel, CSXT, 500 Water Street-J150, Jacksonville, FL 32202



500 Water Street - J200 Jacksonville, FL 32202 Tel: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

April 27, 2001

Mr. Charles L. Davis Soil Scientist Natural Resources Conservation Service Jackson Division Office 235 Oil Well Road Jackson, TN 38305

RE:

CSXT Proposed Abandonment Between Cordova and Memphis, in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X)

Dear Mr. Davis:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Your response of April 19, 2001 has been incorporated in the Environmental Report under Section 3(ii).

We are providing this report so that you may review the information that will form the basis for the Board's independent environmental analysis of this proceeding. Before this Report is finalized and submitted to the Board we will incorporate into it any comments that we receive from you. If any of the information is incorrect, if you believe that pertinent information is missing, or if you have any questions about the Board's environmental review process, please contact the Section of Environmental Analysis (SEA), Surface Transportation Board, Washington, DC 20423, telephone (202) 565-1545 and refer to the above Docket Number.

Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please feel free to contact me.

Very truly yours,

Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001

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500 Water Street - J200 Jacksonville, FL 32202 Tel.: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

April 27, 2001

Department of the Army Memphis District, Corps of Engineers 167 N. Mid-America Mall - Room B522 Memphis, TN 38103-1894

RE:

CSXT Proposed Abandonment Between Cordova and Memphis. in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X)

# Gentlemen:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to me) would be appreciated within three weeks.

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Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please feel free to contact me.

Aarray T3. Reynolds

Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001

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500 Water Street - J200 Jacksonville, FL 32202 Tel.: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

April 27, 2001

U.S. Environmental Protection Agency Region 4 61 Forsyth Street, SW Atlanta, GA 30303

RE:

CSXT Proposed Abandonment Between Cordova and Memphis, in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X) TN Dept. of Environment & Conservation Division of Water Pollution Control 401 Church Street 6th Floor, L & C Annex Nashville, TN 37243-1534

## Gentlemen:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to me) would be appreciated within three weeks.

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Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please feel free to contact me.

Very truly yours,

Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001

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file



Nancy B. Reynolds
Manager-Line Transactions
Asset Management

500 Water Street - J200 Jacksonville, FL 32202 Tel.: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

April 27, 2001

U. S. Department of the Interior Fish & Wildlife Service 446 Neal Street Cookeville, TN 38501

RE:

CSXT Proposed Abandonment Between Cordova and Memphis, in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X)

### Gentlemen:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to me) would be appreciated within three weeks.

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Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please feel free to contact me.

Very truly yours,

Janey TJ. Teyrolds

Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001

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500 Water Street - J200 Jacksonville, FL 32202 Phone: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

May 9, 2001

Southeast Region Regional Director National Park Service 100 Alabama Street S.W. 1924 Building Atlanta, GA

RE:

CSXT Proposed Abandonment Between Cordova and Memphis, in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X)

## Gentlemen:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to me) would be appreciated.

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Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please contact me directly by telephone at (904) 359-1424, or by mail at the above address.

Sincerely,

Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001

File.



Nancy B. Reynolds Manage Line Transactions Asset Management 500 Water Street - J200 Jacksonville, FL 32202 Phone: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

May 9, 2001

NGS Information Services NOAA, N/NGS12 National Geodetic Survey SSMC-3, #9202 1315 East West Highway Silver Spring, MD 20910-3282

RE:

CSXT Proposed Abandonment Between Cordova and Memphis, in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X)

### Gentlemen:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to me) would be appreciated.

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Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please contact me directly by telephone at (904) 359-1424, or by mail at the above address.

If you have any questions, please feel free to contact me.

Sincerely.

Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001



Asset Management

TRANSPORTATION

Nancy B. Reynolds 
Manager Line Transactions

500 Water Street – J200 Jacksonville, FL 32202 Phone: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy\_Reynolds@csx.com

April 27, 2001

Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW., Suite 534 Washington, DC 20423-0001

Gentlemen:

RE:

CSX TRANSPORTATION, INC. CORDOVA TO MEMPHIS, SHELBY COUNTY, TENNESSEE DOCKET AB-55 (SUB-NO. 590X)

The attached letter was mailed to the following agencies on April 27, 2001:

City of Memphis Office of Planning and Development 125 N. Main Street, Suite 450 Memphis, TN 38103

Ms. Louise Mercuro
Director, Office of Planning and Development
For Shelby County
160 N. Main - Room 801
Memphis, TN 38103

Mr. Charles L. Davis
Soil Scientist
Natural ResourcesConservationService
Jackson Division Office
235 Oil Well Road
Jackson, TN 38305

Department of the Army Memphis District, Corps of Engineers 167 North Mid-America Mall - Room 522 Memphis, TN 38103-1894 U.S. Environmental Protection Agency Region 4 61 Forsyth Street, SW Atlanta, GA 30303

Tennessee Department of
Environment and Conservation
Division of Water Pollution Control
6th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1534

U. S. Department of the Interior Fish & Wildlife Service 446 Neal Street Cookeville, TN 38501

Sincerely,

Many

Roynola

Attachment

Copy:



500 Water Street - J200 Jacksonville, FL 32202 Tel.: (904) 359-1424 FAX: (904) 359-1111 E-Mail: Nancy Reynolds@csx.com

April 27, 2001

RE:

CSXT Proposed Abandonment Between Cordova and Memphis, in Shelby County, Tennessee Docket AB-55 (Sub-No. 590X)

### Gentlemen:

On May 18, 2001, we expect to file with the Surface Transportation Board ("Board") a Petition For Exemption seeking authority to abandon approximately 13.34 miles of railroad between Cordova and Memphis, in Shelby County, Tennessee. Attached is a preliminary Environmental Report describing the proposed action and any expected environmental effects. Because the applicable statutes and regulations impose stringent deadlines for processing this action, your written comments to SEA (with a copy to me) would be appreciated within three weeks.

We are providing this report so that you may review the information that will form the basis for the Board's independent environmental analysis of this proceeding. Before this Report is finalized and submitted to the Board we will incorporate into it any comments that we receive from you. If any of the information is incorrect, if you believe that pertinent information is missing, or if you have any questions about the Board's environmental review process, please contact the Section of Environmental Analysis (SEA), Surface Transportation Board, Washington, DC 20423, telephone (202) 565-1545 and refer to the above Docket Number.

Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. If there are any questions concerning this proposal, please feel free to contact me.

Very truly yours,

# Attachment

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001

Ms. Natalie S. Rosenberg, Counsel, CSXT, 500 Water Street-J150, Jacksonville, FL 32202

Tro. 1"

# **CERTIFICATION**

I, Louis E. Gitomer certify that on April 27, 2001, the Environmental Report of CSX Transportation, Inc., in Docket No. AB-55 (Sub-No. 590X) has been served on the appropriate parties within the required time period under 49 CFR 1105.7(b), as required by 49 CFR 1105.7(c).

Louis E. Gitomer August 24, 2001

# EXHIBIT C

# HISTORIC REPORT

CSX TRANSPORTATION, INC.

# CORDOVA TO MEMPHIS SHELBY COUNTY TENNESSEE

DOCKET AB-55 (SUB-NO. 590X)

## 1105.7(e)(1)

PROPOSED ACTION AND ALTERNATIVES. Describe the proposed action, including commodities transported, the planned disposition (if any) of any rail line and other structures that may be involved, and any possible changes in current operations or maintenance practices. Also describe any reasonable alternatives to the proposed action. Include a readable detailed map and drawings clearly delineating the project.

CSX Transportation, Inc. (CSXT) proposes to abandon 13.34 miles of its rail line between Cordova and Memphis, Shelby County, Tennessee. The cost of providing transportation exceeds the revenues generated by the traffic on this line. The principal commodities transported are lumber and brick.

Abandonment of this line will result in the removal of the rail, crossties, and upper layer of ballast; and operations and maintenance of this line will cease.

The only alternative would be not to abandon and to pass the operating loss and capital costs of retaining the line to all other CSXT customers. This would not be a prudent utilization of carrier resources.

Two maps which delineate the proposed project are attached. (See Attachments 1 and 2.)

# 1105.8(d)

(1) A U.S.G.S. topographic map (or an alternate map drawn to scale and sufficiently detailed to show buildings and other structures in the vicinity of

the proposed action) showing the location of the proposed action, and the locations and approximate dimensions of railroad structures that are 50 years old or older and are part of the proposed action.

Attached are copies of portions of the Northeast Memphis-1997 and Ellendale-1993 topographic maps prepared by the U. S. Department of Interior Geological Survey highlighted with a heavy black diagonal line to delineate the project area. (See Attachments 3 and 4.) There are no CSXT-owned structures that are 50 years old or older that are part of the proposed action.

(2) A written description of the right of way (including approximate widths, to the extent known), and the topography and urban and/or rural characteristic of the surrounding area:

The line traverses the City of Memphis in an easterly direction to the town of Cordova. The right of way is 50 feet from centerline of track.

(3) Good quality photographs (actual photographic prints, not photocopies) of railroad structures on the property that are 50 years old or older and of the immediately surrounding area:

Not applicable.

(4) The date(s) of construction of the structure(s), and the date(s) and extent of any major alterations, to the extent such information is known:

Not applicable.

(5) A brief narrative history of carrier operations in the area, and an explanation of what, if any, changes are contemplated as a result of the proposed action:

The Tennessee Midland Railway between 1887 and 1895 acquired the property for this rail line. The Tennessee Midland Railway was chartered under the General Acts of the State of Tennessee in 1875. In order to raise funds to construct its road it issued and disposed of its first and second mortgage bonds which were guaranteed by the Paducah, Tennessee & Alabama Railroad. Default being made in the payment of the coupons, the St. Louis Trust Company, as trustee, on October 28, 1893, filed a bill in the Circuit Court of the United States for the Western Division of the Western Judicial Circuit of Tennessee at Memphis, and afterward, on July 1, 1895, a supplemental bill, seeking to foreclose said mortgages. Under these proceedings the road was sold to J. W. Phillips. On December 14, 1895, J. W. Phillips sold said road, properties, franchises, etc. to the Louisville & Nashville Railroad Company.

The Louisville and Nashville Railroad Company was incorporated under special act of Kentucky on March 5, 1850, under special act of Tennessee on December 4, 1851, and under special act of Virginia, on March 30, 1887.

In 1972 The Family Lines was adopted to identify the Louisville and Nashville Railroad and the Seaboard Coast Line Railroad. On November 1, 1980, Seaboard Coast Line Industries Inc. (which was formed in May, 1969) and Chessie System Inc. merged and became CSX Corporation. On January 1, 1983, the merger of The Family Lines' affiliates formed the Seaboard System Railroad Inc., which name was changed on July 1, 1986 to CSX Transportation, Inc.

Upon receiving abandonment authority, Applicant's operations and maintenance over this line will cease.

(6) A brief summary of documents in the carrier's possession, such as engineering drawings, that might be useful in documenting a structure that is found to be historic:

Not applicable.

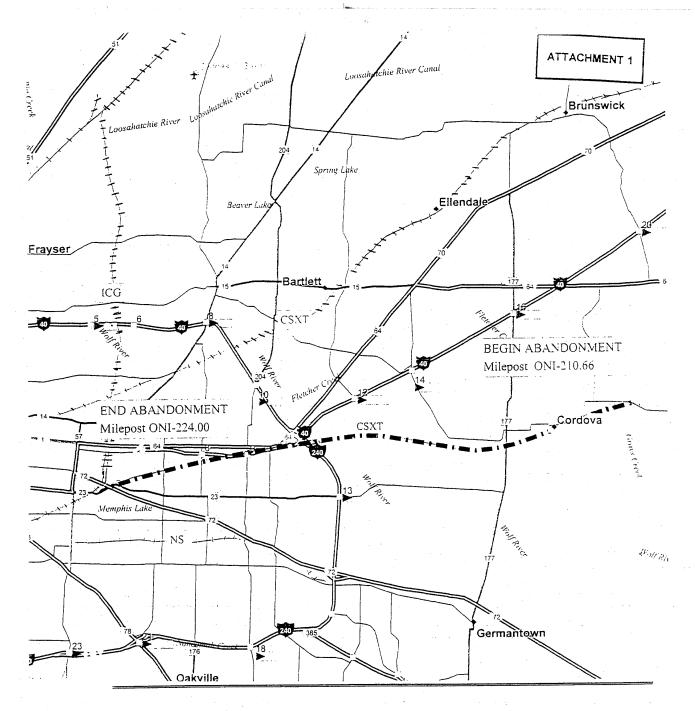
(7) An opinion (based on readily available information in the railroad's possession) as to whether the site and/or structures meet the criteria for listing on the National Register of Historic Places (36 C.F.R. 60.4), and whether there is a likelihood of archeological resources or any other previously unknown historic properties in the project area, and the basis for these opinions (including any consultations with the State Historic Preservation Office, local historical societies or universities):

A review of our records indicates there are no CSXT-owned structures over 50 years old on this line segment.

We do not know of any archeological resources or any other previously unknown historic properties in the project area.

(8) A description (based on readily available information in the railroad's possession) of any known prior subsurface ground disturbance or fill, environmental conditions (naturally occurring or man-made) that might affect the archeological recovery of resources (such as swampy conditions or the presence of toxic wastes), and the surrounding terrain.

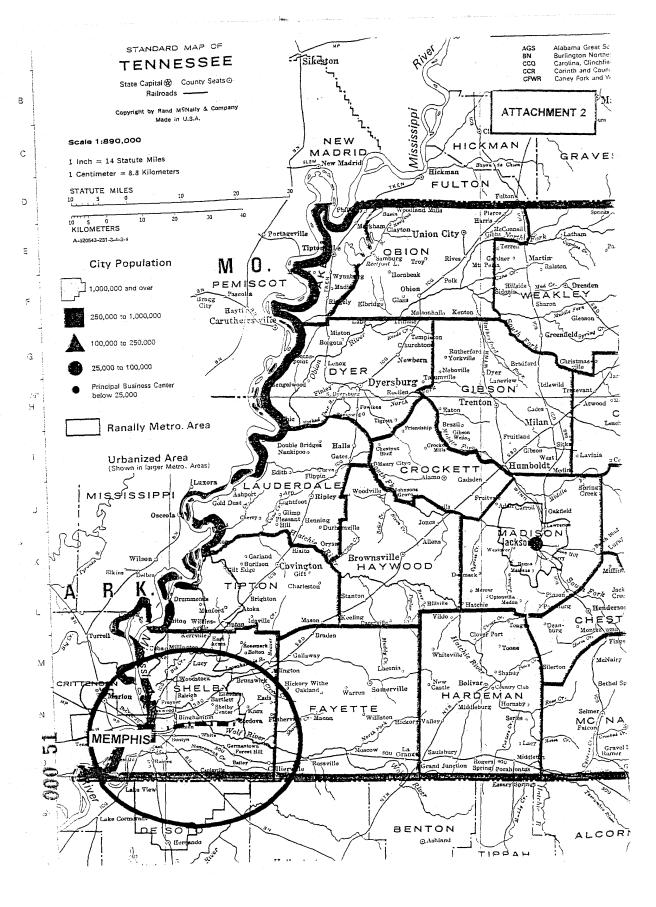
The line was disturbed during construction by cuts and fill and any archeological resources that may have been located in the proposed project area would have been affected at that time versus during the proposed salvage operations associated with rail removal. Our records do not indicate that any swampy conditions exist, or that any hazardous material spills have occurred within the project area.



# CSX TRANSPORTATION, INC

# PORTION OF TENNESSEE

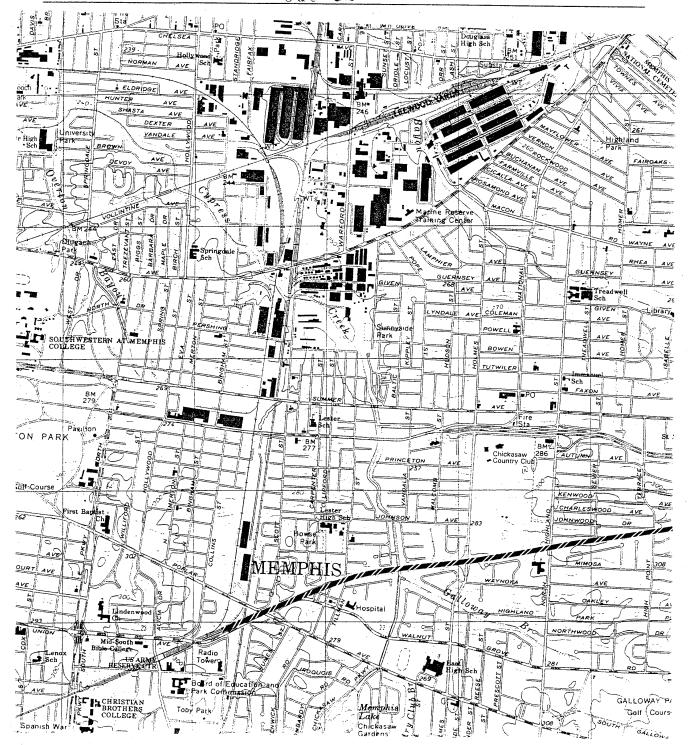
13.34 miles track to be abandoned



NORTHEAST MEMPHIS QUADRANGLE TENNESSEE-SHELBY CO. 1997

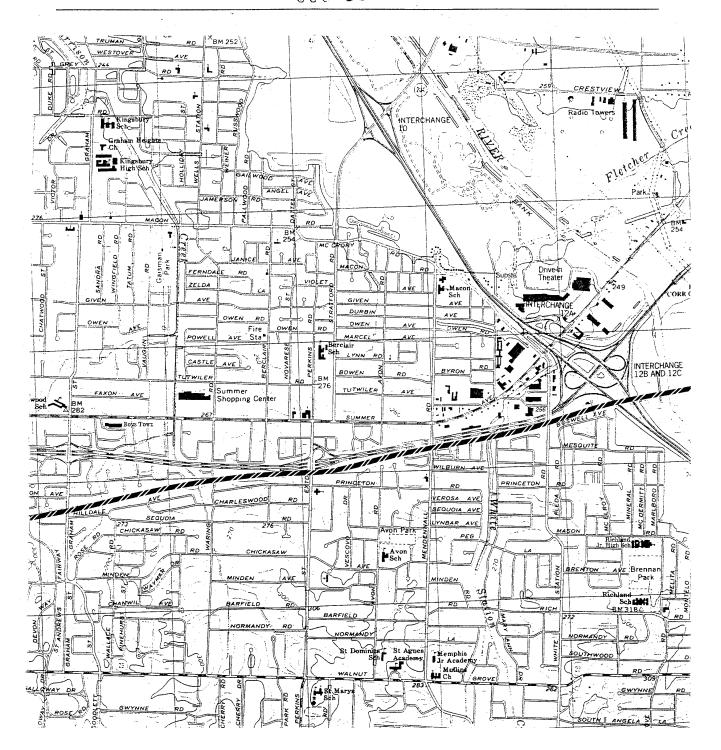
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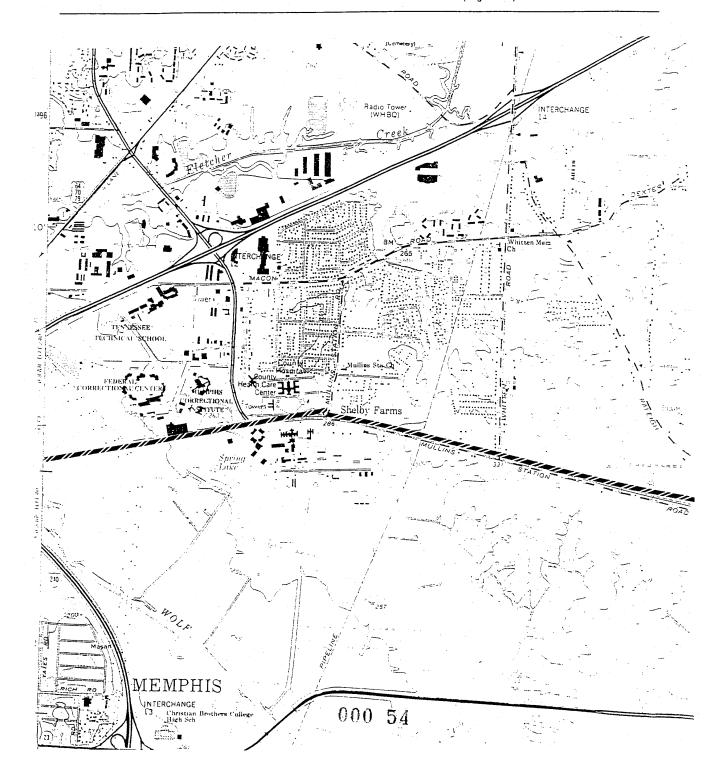


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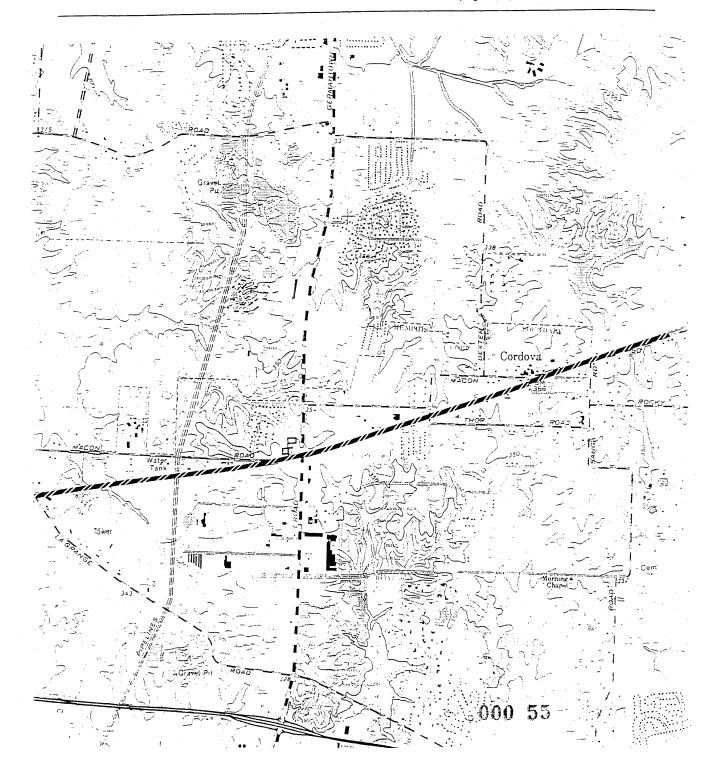
NORTHEAST MEMPHIS QUADRANGLE TENNESSEE-SHELBY CO. 1997 (Page 2 of 2)



ELLENDALE QUADRANGLE TENNESSEE-SHELBY CO. 1965-Revised 1993 (Page 1 of 2)



ELLENDALE QUADRANGLE TENNESSEE-SHELBY CO. 1965-Revised 1993 (Page 2 of 2)





500 Water Street - J200 Jacksonville, FL 32202 Tel. (904) 359-4925 Fax (904) 359-1111 E-Mail: Joanna\_Griffith@csx.com

Joanna Griffith Director - Route Structures Asset Management - J200

April 9, 2001

Mr. Herbert L. Harper
Executive Director and Deputy
State Historic Preservation Officer
Tennessee Historical Commission
Department of Environment and Conservation
2941 Lebanon Road
Nashville, TN 37243-0442

RE:

CSXT ABANDONMENT CORDOVA TO MEMPHIS SHELBY COUNTY DOCKET AB-55 (SUB-NO. 590X)

Mr. Harper:

Please be advised that on May 18, 2001, CSX Transportation, Inc. anticipates filing for abandonment of a portion of its rail line between Cordova and Memphis, TN, as shown on the attached maps.

In connection with rail lines that are to become the subject of applications for authority to abandon, Federal Regulations at 49 CFR 1105.8(d), require that a Historic Report be submitted to the State Historic Preservation Officer prior to filing with the Surface Transportation Board. In accordance with those Regulations, I am attaching a Historic Report covering the above proposed abandonment.

I will appreciate receiving your letter confirming that this project will have no impact upon cultural resources. If you have questions, please feel free to call me.

Sincerely

Joanna M. Gr: pfith

Attachments

Copy: Surface Transportation Board Section of Environmental Analysis 1925 "K" Street NW - Suite 534 Washington, DC 20423-0001





# TENNESSEE HISTORICAL COMMISSION

DEPARTMENT OF ENVIRONMENT AND CONSERVATION 2941 LEBANON ROAD NASHVILLE, TN 37243-0442 (615) 532-1550

April 25, 2001

Mr. Joanna M. Griffith CSX Transportation 500 Water Street-J 200 Jacksonville, Florida 32202

RE: STB, DOCKET AB-55 (SUM NO 590X), UNINCORPORATED, SHELBY COUNTY

# Dear Mr. Griffith:

Pursuant to your request received by this office on Thursday, April 12, 2001, this office has reviewed documentation concerning the above-referenced undertaking. This review is a requirement of Section 106 of the National Historic Preservation Act for compliance by the participating federal agency or applicant for federal assistance. Procedures for implementing Section 106 of the Act are codified at 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739)

Based on available information, we find that the undertaking as currently proposed may affect historic properties eligible for listing in the National Register of Historic Places. We therefore recommend that your agency begin immediate consultation with our office to complete Section 106 review on this undertaking. This office will also need to review a cultural resources survey report for this project before any work commences. You may find additional information concerning the Section 106 process and the Tennessee SHPO's documentation requirements at <a href="www.state.tn.us/environment/hist/sect106.htm">www.state.tn.us/environment/hist/sect106.htm</a>. Questions and comments may be directed to Joe Garrison (615) 532-1559. Your cooperation is appreciated.

Sincerely,

Herbert L. Harper Executive Director and Deputy State Historic

Herbert C. Du

Preservation Officer

HLH/jyg

# **EXHIBIT D**

# VERIFIED STATEMENT OF ELLEN M. PRESLAR

I am Ellen M. Preslar, Senior Manager-Costing in the Cost & Economic Analysis department of CSX Transportation, Inc. In this job I am responsible for the preparation of costing analyses, including those required for abandonments under 49 CFR Subpart D. I have prepared the attached revenue and cost statement in accordance with my understanding of the rules in 49 CFR Subpart D.

# VERIFICATION

I, Ellen M. Preslar verify under penalty of perjury under the laws of the United States that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed March 27, 2002

Ellen M. Preslar Ellen M. Preslar

CSX Transportation, Inc.

Line Seg	ment:	Memphis	to	Cordo	va,	ΤN

Discontinuance of Service MP ONI 210.66 - ONI 222.4  Revenues Attributable	0/Т —	Base Year* (Yr 2000) 274 CL		orecast Year gin 03/01/02) 274 CL	Subs	Projected sidy Year (End 06/30/03) 274 CL
Freight Originated &/or Terminated On Branch	n \$	242,455		257,002		261,851
Bridge Traffic		-		-		-
All Other Revenue and Income		2,200	_	2,200	_	2,200
4. Total Revenues Attributable (Lines 1 thru 3)	\$	244,655	_\$_	259,202	\$	264,051
Avoidable Costs						
5. Total On-Branch Costs (Lines 5a thru 5k)	\$	111,236	\$	149,606	\$	150,090
<ul> <li>Maintenance of Way and Structures</li> </ul>		16,500		55,000		55,000
b. Maintenance of Equipment - Locomoti	ves	6,937		7,019		7,056
c. Transportation		35,787		34,938		35,186
<ul><li>d. Joint Facilities</li><li>e. Deadheading, Taxi and Hotel</li></ul>		<u> </u>			-	<u> </u>
f. Overhead Movement		8,879		8,805		8,853
g. Freight Car Costs (o/t Return on Freigh	nt Cars)	21,543		22,254		22,405
h. Return on Value - Locomotives		12,026		12,026		12,026
<ol> <li>Return on Value - Freight Cars</li> </ol>		9,564		9,564		9,564
j. Revenue Taxes						
k. Property Taxes		<del>-</del>		-		<u> </u>
6. Total Off-Branch Costs (Lines 6a and 6b)	_\$_	179,887	\$	185,465	\$	186,648
a. Off-Branch Costs (o/t Return on Freigh	nt Cars)	169,040		174,618		175,801
b. Return on Value - Freight Cars		10,847		10,847		10,847
7. Total Avoidable Costs (Lines 5 and 6)	, <b>\$</b>	291,123		335,071	\$	336,738
Subsidization Costs						
8. Rehabilitation	,	XXXX		XXXX		881,000
Administration Costs	· · ·	XXXX		XXXX		
10. Casualty Reserve Account		XXXX		XXXX	-	
11. Total Subsidization Costs (Lines 8 thru 10)	-	XXXX		XXXX	\$:	881,000
Return on Value						
12. Valuation of Property (Lines 12a thru 12c)		XXXX	\$	921,151	\$	921,170
a. Working Capital		XXXX		4,891		4,910
b. Income Tax Consequences		XXXX		(145,298)		(145,298)
c. Net Liquidation Value		XXXX		1,061,558		1,061,558
13. Nominal Rate of Return		xxxx		15.4%		15.4%
14. Nominal Return on Value (Line 12 * Line 13)	· ·	XXXX		141,857		141,860
15. Holding Gain (Loss)	· ·	XXXX	_	31,847		31,847
16. Total Return on Value (Line 14 less Line 15)		XXXX	\$	110,011	\$	110,013
17. Avoidable Loss from Operations (Line 7 less L	ine 4)\$_	46,468	\$	75,869	\$	72,687
18. Estimated Forecast Year Loss from Operation	s			V		
(Lines 7 and 16 less Line 4)	-		\$	185,880		
19. Estimated Subsidy Year Loss from Operations						
(Lines 7, 11 and 16 less Line 4)					\$	1,063,700

CSX Transportation, Inc.

Line Segment: Memphis to Cordova, TN

Discontinuance of Service MP 0NI 210.66 - 0NI 222.4

# Notes to Exhibit 1:

*	Base Year	An embargo was placed on the line March 1, 2001. Therefore, the year 2000 is a more
		representative period to use for a complete base year than any period ending within six months of the filing date. [See Definitions / <u>Base Year</u> at 49 CFR 1152.2(c).]
	Carloads	
		All three periods reflect carloads actually moving in the base year period. The O/T carloads include traffic originated / terminated by patrons located on the line segment.
Line 1	Freight Revenues	Base year = total CSXT waybill revenues; Forecast year = Base year revenues with potential increase over the base year numbers (6.0%) as identified by CSXT marketing personnel; Subsidy year = Base year revenues with potential increase of 8.0%.
Line 3	All Other Revenue and	Track lease.
	Income	
Line 5	Avoidable On-branch Costs	Costs for base year are based on year 2000 unit costs. The forecast year and subsidy year costs reflect indexing adjustments.
Line 5a	Maintenance of Way & Structures	For the forecast year and subsidy year periods, the maintenance expenses are estimated at \$5000 per mile per year.
Line 5f	Overhead Movement	Costs attributable to the movement between Leewood Yard and the branch-line beginning cutpoint. Adjustments have been made to other cost categories to prevent double-counting of costs.
Lines 5g & 5i	On-branch Car Costs	Standard on-branch car cost calculation using year 2000 unit costs indexed to the forecast year and subsidy year periods.
Line 6	Off-branch Costs	CSXT 2000 URCS indexed to the forecast year and subsidy year periods.
Line 8	Rehabilitation (Subsidy Year Only)	In order to re-establish service to the patrons at the end of the line segment, six bridges must be repaired at an estimated rehabilitation cost of \$881,000. The subsidy year period is defined to begin July 1, 2002 in order to allow a minimum of three months for this work to be completed.
Line 12	Valuation of Property	The net liquidation value is based on mileage proration (11.74 of 13.49 miles) of land value provided by CSXT Real Property (\$357,500) and net salvage value of track provided by CSXT Engineering Department (\$862,682). Income tax consequences are calculated at 37% of land and re-sale track values.

# **EXHIBIT E**

# **VERIFIED STATEMENT**

OF

# LEEROY DAVIDSON

My name is Leeroy Davidson and I am Regional Engineer of Structures for CSX

Transportation, Inc. ("CSXT"). My office is located at 11429 Bluegrass Parkway, Louisville,

KY. My duties include inspection, repair and replacement of all railroad structures in the

Midwest Region. I began my railroad career in 1970 as a bridge repairman, and was promoted to

Assistant Bridge Supervisor in 1972 and Bridge Supervisor in 1980 for the former Louisville and

Nashville Railroad Company. Since 1981, I have been employed by CSXT in the following

positions: Assistant Bridge Supervisor, Bridge Supervisor, General Bridge Supervisor, Engineer

B&B, Engineer of Production, Assistant Division Engineer, and Regional Engineer of Structures.

This statement describes the condition of six mainly timber bridges on the 12.24-mile railroad line between Cordova, milepost ONI 210.66, and East of Memphis, TN, milepost ONI 222.9, in the Midwest Region, Nashville Division (the "Line"). This statement also details the relevant repair and replacement costs for each of the six bridges on the Line.

The Line was embargoed on March 1, 2001, because the first bridge (located at milepost ONI 218.5) is unsafe to operate over any longer absent significant repairs.<sup>1</sup> The estimated time necessary to repair the bridge to a safe level is approximately three to six months.

In January 2001, I personally inspected each of the six bridges along with a CSXT Bridge Supervisor and CSXT Assistant Regional Engineer Bridges. The bridges were inspected by following the industry standards for bridge inspections as well as the standards outlined in CSXT Fundamentals of Railroad Bride Inspection (attached as Exhibit A). The techniques employed in the inspection of the bridges included the Pick Test, visual inspection, sounding and drilling

(explained in Exhibit A). I reviewed the inspection reports in March 2002, and confirmed that the conclusions of the earlier inspection are correct and still applicable to the Line.

A typical timber railroad bridge has a life span of approximately 40 to 50 years depending on the rate of decay, the quality of timber used and the quality of the preservative treatment, among other factors. When the cost of repairing a bridge is so great that it is not economically feasible to maintain and it becomes unsafe to operate on the bridge, the life of that bridge is considered to have ended.

After the inspection utilizing the industry standards, the above-mentioned techniques and my general engineering knowledge, I determined that the first bridge is unsafe to operate over without significant repairs and that the other five bridges are greatly deteriorated and will require extensive repairs in the near future to maintain a safe operating condition for five years. Even if CSXT were to make the recommended repairs to the bridges, the bridges would still require replacement within about 10 years because the bridges have effectively reached or surpassed their useful lives.

Listed below by location are the six bridges with a description of each bridge as well as the cost of repair and reconstruction for each.

Bridge #1 is located at milepost ONI 218.5 on the Line. The bridge measures approximately 1792 linear feet. It consists of about 1615 linear feet of creosote pine timber trestle on driven 6-pile bents and approximately 177 linear feet of steel open deck plate girders on concrete piers. In order to repair the bridge, CSXT would be required, at a minimum, to replace 160 bridge ties, post 158 pilings, and replace 30 caps. The cost of performing these repairs is estimated to be \$485,000. The cost to rebuild bridge #1 is estimated to be \$4,446,000,

in large part due to the length of the bridge. See Timber Bridge Inspection Report dated January 9, 2001 for Bridge #1 in Exhibit B.

Bridge #2 is located at milepost ONI 218.4 on the Line. The floor of the bridge was built in 1919 and the bents were added in 1936. The bridge measures approximately 180 linear feet. It is a creosote pine timber trestle. The pilings are 50% to 70% decayed. The caps, stringers, and flooring are 80% decayed. I estimate the cost to post 14 pilings and replace three caps to be approximately \$38,000. The cost to rebuild bridge #2 is estimated to be \$540,000. See Timber Bridge Inspection Report dated January 9, 2001 for Bridge #2 in Exhibit C.

Bridge #3 is located at milepost ONI 218.3 on the Line. The bridge was built in 1953 and measures approximately 248 linear feet. It is a six-pile creosote pine timber trestle. The pilings, caps, stringers, and flooring are 30% to 40% decayed. I estimate the repair cost to post 40 pilings and replace 10 caps to be approximately \$115,000. The cost to rebuild bridge #3 is estimated to be \$756,000. See Timber Bridge Inspection Report dated January 9, 2001 for Bridge #3 in Exhibit D.

Bridge #4 is located at milepost ONI 218.1 on the Line. The bridge was built in 1952 and measures approximately 192 linear feet. It is a six-pile creosote pine timber trestle. The pilings, caps, stringers, flooring, and curbs are 30% to 40% decayed. I estimate the repair cost to post 12 pilings and replace six caps to be approximately \$45,000. The cost to rebuild bridge #4 is estimated to be \$576,000. See Timber Bridge Inspection Report dated January 9, 2001 for Bridge #4 in Exhibit E.

Bridge #5 is located at milepost ONI 214.9 on the Line. The bridge was built in 1930 and measures approximately 72 linear feet. It is a six-pile creosote pine timber trestle. The pilings are 60% to 70% decayed, and the caps, stringers, flooring, and curbs are 90% to 100% decayed.

I estimate the repair cost to post 22 pilings and replace all caps, stringers, flooring, and curbs to be approximately \$108,000. The cost to rebuild bridge #5 is estimated to be \$216,000. See Timber Bridge Inspection Report dated January 9, 2001 for Bridge #5 in Exhibit F.

Bridge #6 is located at milepost ONI 211.0 on the Line. The bridge was built in 1924 and measures approximately 49 linear feet. It is a six-pile creosote pine timber trestle. The pilings, caps, stringers, and flooring are 60% to 70% decayed. Additionally, the north end of Bridge #6 has been washed out by heavy rains. I estimate the repair cost to post 15 pilings, replace five caps, replace 50% of flooring, and replace 100 linear feet of curbs to be approximately \$90,000. The cost to rebuild bridge #6 is estimated to be \$147,000. See Timber Bridge Inspection Report dated January 9, 2001 for Bridge #6 in Exhibit G.

The total replacement cost for all six bridges is estimated to be \$6,681,000. This estimate only includes the cost to replace the bridges and does not contemplate any allowance for maintenance and repair to the track along the Line. Although CSXT could perform approximately \$881,000 worth of work to the bridges in order to return them to service, and could probably continue to use the bridges through 2007, CSXT does not believe this to be the most prudent course of action. These bridges have outlived their useful lives and will require replacement very shortly. Even if CSXT were to spend \$881,000 over the next several years on the bridges, within five years CSXT would have to begin the process and incur the expense of replacing the bridges.

# VERIFICATION

I, Leeroy Davidson verify under penalty of perjury under the laws of the United States that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

My Commission expires april 18, 2005 Donald R Richardso Notary Public, Harden County,

Executed March 20, 2002.

Leeroy Davidson

000 67

# ENGINEERING DEPARTMENT TECHNICAL TRAINING CENTER

**PRESENTS** 

# The Fundamentals of Railroad Bridge Inspection



Kenneth Cotten, P.E.
Engineering Services, Inc. - Railroads
1253 Fruit Cove Drive South
Jacksonville, Florida
(904) 287-0328

000 68

# PROPERTIES OF WOOD

A. TIMBER - Is a widely used construction material on the railroad, for bridges, tunnels, retaining walls, piers, buildings, etc. Timber and lumber come in many kinds and grades, with wide variations in hardness, weight, strength, workability, texture, grain pattern, etc. Lumber is classified either softwood or hardwood. Generally, softwood comes from the needle-bearing or evergreen trees, while hardwoods come from broad leaf (deciduous) trees. This classification is somewhat confusing, however, because many of the so called hardwood species produce softer wood than some of the softwood species. The more commonly available softwood species would be the firs, pines, cedar, redwood, etc. Hardwoods generally available would be oak, maple, cherry, ash, gum and walnut. Most timber and lumber used in repair and maintenance of structures today will be one of the softwood species. All of the timber and lumber used in permanent bridge repairs should be treated with a wood preservative. Untreated timber and lumber should only be used for temporary repairs, shoring, blocking, etc.

Types of Timber - Wood differs from other construction materials because it is produced in a living tree. As a result wood possesses material properties that are entirely different from other material normally encountered in structural design.

# **B. GOOD FEATURES - BAD FEATURES**

Good Features - The physical properties of wood describe its characteristics and its behavior to external influences other than applied forces. Some of the good properties of wood are strength, impact resistance, durability, elasticity, thermal expansion and electrical conductivity.

Strength - Timber, while not as strong as steel approximates ordinary concrete in compressive strength. It is strongest in flexural strength, i.e., timber has an allowable compressive strength (parallel to grain) of about 75% of the flexural value. Perpendicular to the grain, compressive strength is only 20% of the flexural strength. Horizontal shear is limited to 10% of the flexural strength.

- Impact Resistance Since timber is able to withstand greatly increased load momentarily, neither impact nor fatigue are serious problems with timber.
- **Durability** Under certain conditions, and when properly treated or protected, timber is quite a durable material under all conditions. Some preservative treatments, however, reduce the strength of timber.
- Elasticity Wood is not ideally elastic in that some deformation from loading is not immediately recovered when the load is removed; however, residual deformations generally recover over a period of time. Although wood has other elastic properties, it is usually assumed to behave as an elastic material for most engineering applications.
- Thermal Expansion of wood is positive in all directions: it expands when heated and contracts when cooled. Wood is a good insulator and does not respond rapidly to temperature changes; therefore, its thermal expansion and contraction lag substantially behind temperature changes in the surrounding air.
- Electrical Conductivity Dry wood is a good electrical insulator and exhibits only minor variations in conductivity relative to variations in density and species. Although electrical properties generally have little effect on bridge design, the co-relation between electrical conductivity and moisture content is the basis for electrical resistance-type meters that are commonly used in bridge inspection related to product manufacturing.
- **C. BAD FEATURES -** Some of the bad properties of wood are porosity, anisotropy, lack of fire resistance, weathering, chemical resistance, abrasion, and is subject to overloading and volume changes (density).
  - Porosity Since wood is a cellular, organic material, timber is quite porous.

# TIMBER INSPECTION

- Anisotropy Wood has different strength properties depending upon the manner and direction of loading
- Fire Resistance Timber is particularly vulnerable to fire
- Weathering, Warping, etc. This is normally caused by repeated dimensional changes in the wood as it gets wet and then drys
- Chemical Reaction affects wood in three different ways: A swelling and resultant weakening of the wood, breaking down the cellulose by acids, or a general deterioration by alkalis. Animal wastes are also a problem.
- Abrasion is most serious when combined with decay which softens or weakens the wood. On bridges, decks are especially vulnerable
- Overloading Damage will be evident in the form of shattered or injured timbers, sagging or buckled members, or timbers with large longitudinal cracks.
- Volume Change Wood density varies with moisture content.

# D. CAUSES OF DETERIORATION

Agents of deterioration - Some of the agents of deterioration are bacteria, fungi, vermin, water, weathering (sunlight), chemical and mechanical wear.

■ Bacteria - are small, single-cell protists that are among the most common organisms on earth. They recently have been shown to be important colonizers of untreated wood in very wet environments, causing increased opening and softening of the wood surface. Bacterial decay is normally an extremely slow process, but can become serious in situations where untreated wood is submerged for long periods. Although untreated wood may become weaker when it remains saturated for very long periods, bacterial decay does not appear to be a serious hazard to the pressure-treated timber typically used for bridge construction.

- Fungi are simple, plantlike organisms that break down and utilize wood material as a food source. They move through the wood as a network of microscopic, threadlike molds that grow through the pits or directly penetrates the wood cell wall. Once the fungus obtains a sufficient amount of energy from the wood, it scatters reproductive spores that can invade other wood. These spores are so widely spread by wind, insects and other means that they can be found on most exposed surfaces. As a result, all wood structures are subject to fungal attack when moisture and other requirements conducive to fungal growth are present.
- Decay Fungi Decay in timber bridges is normally caused by decay fungi. these fungi are grouped into three broad classes based on the manner in which they attack wood and the appearance of the decayed material. The three types of decay fungi are brown rot fungi, white rot fungi and soft rot fungi.
  - Brown Rot Fungi gives decayed wood a brownish color. Of the three types of decay, brown rots are among the most serious because of their pattern of attack. Strength losses in wood may extend a substantial distance from locations where the decay can be visibly detected.
  - White Rot Fungi produces decay that resembles normal wood in appearance, but may be whitish or light tan in color with dark streaks. In advanced stages of decay, infected wood has a distinctively soft texture and individual fibers can be peeled from the wood.
  - Soft Rot Fungi are a more recently recognized group that generally confine their attack to the outer wood shell. They typically attack wood subjected to continuous wetting or changing moisture conditions, and may occur in low-oxygen environments.



M 145 208-C



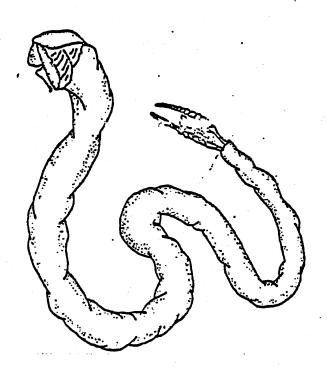
(Courtesy of Frank Porter Lumber Co., Chicago, = Examples of decay fruiting bodies: Upper, soft, fleshy, shelf-like forms; lower, resupinate forms

### **Marine Borers**

History - the shipworm's place in history is secure. It was the scourge of the Romans with their galleys, of the seagoing Greeks and Phoenicians, of the explorers of the New World. In the 1700's it riddled the dikes that the Dutch had built to keep out the sea; by so doing it threatened the very life of Holland. (As an academic by-product, the first extensive studies of the shipworm were made by Dutch scientists, to whom knowledge of its biology had become a matter of life and death. Snellius, in 1733, pointed out for the first time that this animal is a clam like mollusk, not a worm.) About 1917 the shipworm invaded the harbor of San Francisco. Before its inroads were even suspected, ferry slips had begun to collapse and wharves and loaded freight cars fell into the harbor. During the Second World War, especially in all tropical waters, the shipworm was an unseen but powerful enemy.

Description - for centuries the terms "shipworm" and "pileworm" have been applied to various marine boring organisms, especially Teredo, which have been observed boring into wood submerged in salt water. The general term "marine borer" is used to designate any of the several hundred species of marine invertebrates which bore into timber, low-grade concrete, soft stone, or other non-metallic materials in salt water. There are two divisions of these destructive organisms, the Molluscan group and the Crustacean group. Their methods of attack on timber are somewhat different. Individuals of the Molluscan group enter the timber through minute holes, and destroy the interior of the timber. The attack of these borers can be discerned by careful inspection of the timber. The attack of this group is easily recognized and may be measured by surface inspection. The rate of destruction by the Molluscans is several times more rapid than that by the Crustaceans.

Molluscan Borers - consist of the Teredo and Pholads, which have different physical characteristics. The Teredo, illustrated in Figure 1, is commonly called a shipworm.



### **TEREDO**

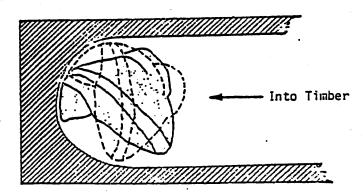
Diagramatic drawing of an entire Teredo showing relative position of shells and pallets (lateral view)

(Clench & Turner, 1946)

000 76

it has a grayish, slimy, worm-like body and a shell on its head which is used for boring. The burrow is lined with a smooth nacreous lining. The size of the mature individual of the common species ranges from 3/8 inch in diameter and 5 or 6 inches in length, to 1 inch in diameter and 4 to 5 feet long. Individuals of this specie have been discovered in some of the Pacific Islands in sizes more than 3 inches in diameter and 3.5 feet in length. In areas of heavy attach, an untreated pile may be totally destroyed, in so far as its bearing capacity is concerned, in 6 to 8 months. Animals of the Teredo group have been found only in salt or brackish water of harbors in continental North America, but have been found in fresh water in other parts of the world.

The female of the common shipworm retains the young in her burrow until they have attained the larval stage. Then they are launched into the sea - each a tiny being enclosed in two protective shells, looking like any other young bivalve. If it encounters wood when it has reached the threshold of adulthood, all goes well. It puts out a slender byssus thread as an anchor, a foot develops, and the shells become modified into efficient cutting tools, four rows of sharp ridges appear on their outer surfaces. The burrowing begins. With a powerful muscle, the animal scrapes the ridged shell against the wood revolving meanwhile so that a smooth, cylindrical burrow is cut.



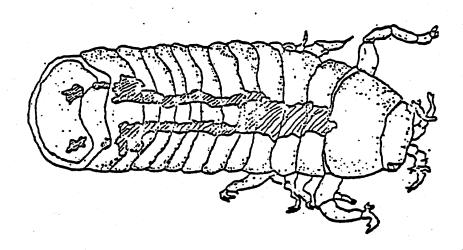
Diagramatic drawing of Teredo shell in the burrow, to show two positions in boring (lateral view)

As the burrow is extended, usually with the grain of the wood, the body of the shipworm grows. One end remains attached to the wall near the tiny point of entrance. This bears the siphons through which contact with the sea is maintained. The penetrating end carries the small shells. Between stretches a body that is thin as a lead pencil, but may reach a length of eighteen inches. Although a timber may be infested with hundreds of larvae, the burrows of the shipworms never interfere with each other. If an animal finds itself coming close to another burrow, it invariably turns aside. As it bores, it passes the loosened fragments of wood through its digestive tract.

The Pholads also use their shells for boring, but heir bodies are enclosed by the shells and there is no lining in the burrow. Some species of this group bore in concrete as well as in soft rock and mud. They make entrance holes somewhat larger than those made by Teredo, but the holes are still small and hard to find by surface inspection. Species of this group are found in all parts of the world, but in general, are fewer in number than the Teredo and are responsible for much less damage, even though their attack is more difficult to prevent.

Crustacean Borers - the three important ones are: Limnoria, Sphaeroma, and Chelura.

Limnoria - the most widely distributed of the group, is illustrated in Figure 2.



### **LIMNORIA**

**Dorsal View** 

(After Hoek, 1893)

Note: Drawing magnified approximately 30 times. Body length averages only 1/8" t 1/4".

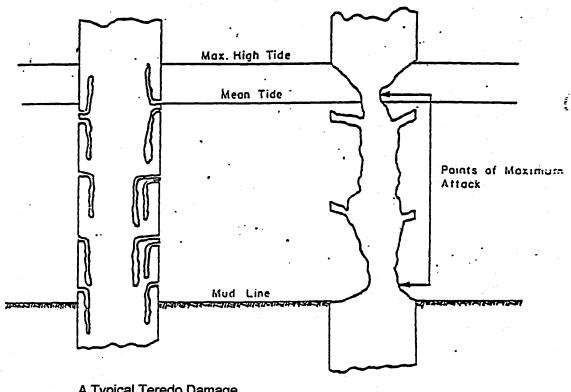
In appearance it resembles the wood louse. It has a body from 1/8 to 1/4 inch in length, and a width of about 1/3 the length. The mouth of the Limnoria contains a pair of strong, horny-tipped mandibles with which the boring is done. Its body has seven pairs of legs ending in sharp, hooked claws so that it can move freely and cling to timber. It uses its gill plates for swimming. Limnoria destroy timber by gnawing interlacing branching burrows on the surface or to a depth seldom exceeding 3/4 inch. As many as 400 individuals per square inch have been counted on timber under heavy attack. The points of greatest concentration are found near the mud line and mean tide level, but they may be either distributed uniformly or concentrated anywhere between these limits. They are found in tidal waters from the Arctic Circle to the Tropics.

Sphaeroma - are very much like Limnoria in appearance except that they are generally larger, a large specimen being ½ inch in length and 1/4 inch in width. Sphaeroma are widely distributed geographically but are not as noted for destruction of timber as are the Limnoria.

Chelura - are sightly larger than the Limnoria and are found in the same localities. When present in great numbers, they seem to drive out the Limnoria. The body at the joints, the antennae and the legs are heavily feathered with long hairs. This borer is destructive in European waters and in many Pacific Island harbors. It had not been found in important numbers on the continental United States until 1935, when it appeared in enormous numbers in Boston and several other New England harbors. Until recently Chelura had been considered as destructive as the Limnoria, however recent studies seem to indicate that this specie has been greatly overrated in its destructive ability, possibly because Chelura are frequently discovered occupying abandoned Limnoria burrows.

### DAMAGE

The area of attack - of the marine borer generally extends from the mud line to the high water line, as shown in Figure 3. In the past it was thought that Limnoria (Crustacean Group) showed greatest attack at the water line and Teredo (Molluscan Group) at the mud line. However, experiments have shown that this is not necessarily the case. In some localities Teredo or Limnoria may show a particular are of concentration relative to the water line of the pile, however, the point of attack on a pile in another locality may be different.



A Typical Teredo Damage

B Typical Limnoria Damage

FIGURE 3 - TYPICAL PILE DAMAGE BY MARINE BORERS 000 81

**Vermin** - consists of several species of termites, beetles, ants, bees, wasps and marine borers.

- Termites that attack wood are separated into five families, three of which are found within the continental United States. The species most associated with wood damage are the subterranean, dampwood and drywood termites.
- Beetles represent the largest order of insects and contain nine families that cause substantial damage to wood. Many beetles in these families attack only living trees or freshly cut timber, but their damage may be encountered during inspection and can be confused with active deterioration.
- Ants, Bees and Wasps are included in the insect order that can attack wood. The most common insects in this group are the carpenter ants and carpenter bees. These insects will attack wood that is in service. (treated)
- Marine Borers When timber substructures are located in salt or brackish waters, severe damage may occur from attack by marine borers. The marine borers that cause wood damage in the United States are classified into three groups based upon their pattern of wood attack. They are as follows: Pholads, Shipworms (Terredo) and Limnoria (Gribbles).
  - Pholads are clamlike mollusks that burrow into wood and filter food from the surrounding water. As pholads burrow into wood, the surface eventually weakens and tends to break away under wave action. Eventually, the wood area decreases to the point where it fails.
  - Shipworms (Terredo) are long, wormlike mollusks that cause interior damage to wood while leaving only a small hole on the surface as evidence of their attack. As shipworms become established in wood two hard clamlike shells near the tops of their heads begin to rasp away at the wood, leaving tunnels with a characteristic white coating.

Limnoria (Gribbles) - are mobile crustaceans that differ from Shipworms and Pholads in their ability to move from one piece of wood to another during their life cycle. Limnoria damage wood by burrowing small-diameter tunnels near the wood surface. Although the damage is minimal, continued removal of the weakened wood by wave action exposes new wood to attack. Eventually, the member area is reduced to the point where the structure fails or must be replaced. A classic sign of Limnoria attack is the hour-glass shape that severely attacked piling takes about the tidal zone.

Water - When water enters wood, the microstructure swells until the saturation point is reached. At this point free water collects in the wood cell cavities. Repeated wetting and drying or continuous exposure to moisture can result in leaching of the natural toxic hardwood extractives and some preservatives reducing decay resistance.

Weathering (Sunlight) - Some of the most visible wood deterioration results from the action of the Ultraviolet portion of sunlight which chemically degrades the fibers near the wood surface. Ultraviolet degradation causes light wood to darken and dark wood to lighten but this damage penetrates only a short distance below the surface. The damaged wood is slightly weaker, but the shallow depth of the damage has little influence on strength.

Mechanical Damage - is probably the most significant physical agent of timber bridge deterioration. Most commonly, mechanical damage is from vehicle abrasion. Most severe mechanical damage may be caused by long term exposure to vehicle overloads, foundation settlements and debris or ice flows in stream channels.

- Four essential conditions required for decay.
- Deprive the fungus of any one and decay will stop.

### Sufficient Oxygen

Decay fungi cannot survive without some free oxygen.

# Favorable Temperature

- 50°F to 90°F optimum
- Ceases below 35°F and above 100°F

### **Adequate Food**

Wood is the food supply. The food requirement can be controlled and decay prevented by poisoning the wood with a wood preservative.

## **Available Water**

Dry wood will not decay. Wood maintained below a moisture content of about 25% will not decay.

000 84

## **Wood Preservative Treatments**

Oil Preservatives

Creosote

Pentachlorophenol

**Waterborne Preservatives** 

CCA, ACA, ACZA

# Simple Methods for Detecting Internal Decay

# Sounding

o Dull or hollow sound indicates possible decay

# Core and Bore Sampling

- o Increment borer
- o Plug cutter

# Drilling

# Probing

o "Pick test"

## Moisture Meter

000 86

# Other Techniques for Detecting Internal Decay

# Sound-Related Methods

- o Sonic-pol-tech
- Ultrasonic-portable ultrasonic rot locator (PURL)

# Electrical

Shigometer or Conditiometer—
 —electrical resistance

## Radiation

- o X-ray-portable equipment available
- o Gamma ray—battery powered mobile units

# Biological, Biochemical and Chemical

- o Isolation and microscopic
- o Color indicators—based on pH changes

# MYTHS....

(1) "The bridge is old and should be replaced."

(2) "The treatment is all bleached out and timber is badly checked. It looks bad.

(3) "Caps always crush before getting dangerous."

(4) "It sounds bad and should be replaced."

(5) "That's old heart pine and we never have trouble with that."

(6) "We don't have any decay below ground."

(7) "These piles remain in water all the time and we don't have a decay problem."

(8) "All of our bridges are treated and we don't have a decay problem."

(9) "We do have some center rot but it doesn't affect the treated shell."

# AND THE FACTS....

Age, as such, means nothing.

Don't condemn a bridge before boring.

Don't count on it. Dangerous caps can be found only by boring.

Bore it first.

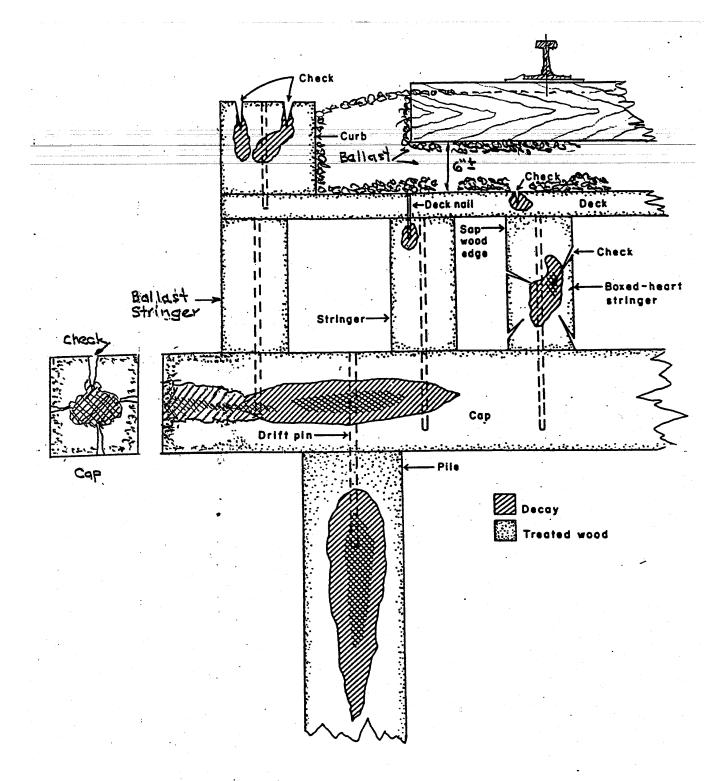
Don't count on it.

Excavate a percentage of piles at least 2 ft and be sure.

Better check about 2 ft or 3 ft above the water—line where wick action ends and decay conditions are just about perfect internally.

Remedial treatments common in treated bridges.

Decay can and does take place in the treated area.



Problem areas of internal decay development in timber bridge members.

TIMBER DETERIORATION								
CAUSES AND EFFETS OF DETERIORATION IN TIMBER								
CA	USE	EFFECT						
Fire		Charring						
Mechanical:	Excessive Loads	Fracture						
	Abrasion Erosion by Rain	Loss of Surface						
	Dust and sand	Loss of Surface						
Water:	Flowing Water	Leaching of color & Erosion of Surface						
	Warming/Drying	Expansion/Contraction causing cracks						
Sunlight:		Fading Color & Embrittlement of Surface						
Chemicals:		Discoloration / Complete Disintegration						
Bacteria:		Superficial Discoloration						
Fungi: (A)	Moist Conditions: Moulds	Superficial Discoloration						
	"Dry Rot"							
(B)	Wet Conditions: Microscopic Rots	Complete Disintegration						
	Visible "Wet Rots" e.g., Cellar Fungus	(In Advanced States)						
Marine Borers:	Teredo	Tunnels						
	Limnoria	Tunnels (External)						
Insects:	Termites (not UK)	Irregular Honeycombing/ Wide Channels						
	Beetles	Tunnels and Exit Holes						

# CRITICAL TIMBER INSPECTION DETAILS

### E. CRITICAL INSPECTION DETAILS

General - Timber bridges may be divided into two general classes, namely trestles and trusses. Timber truss construction is generally no longer used for railroad bridges; however, there are overhead timber highway truss bridges in nearly every state. A trestle bridge usually consists of a number of pile bents. These bents may be of "one story" (15') construction or multi-story - having several layers of construction. In the construction of many very high bridges, piles are driven and capped at ground level and a frame bent built on top of the piles. In both cases it is necessary to provide bracing to reduce the unsupported length of piling. This prevents both longitudinal and lateral movement in the structure. When maintained either continuously dry or wet, timber structures may have a life expectancy of 20 to 50 years. Submerged piles of Roman origin have been found in good condition. Timber will have a shorter life if it is alternately wet or dry, especially if there are freezing and thawing cycles involved.

Timber Outer Guard Rails - are placed upon bridges for three reasons:

- They Are Useful along with inner guard rails, in keeping the wheels of equipment on the bridge in case of a derailment
- They Are Used to keep the bridge ties properly spaced
- To Keep Ties Square to the bridge and prevent skewing

Guard rails, like bridge ties, become weathered, decayed and damaged by derailments and/or dragging equipment. Guard rails are usually renewed with a tie renewal or replaced as a result of a derailment.

When inspecting the trestle deck, look for the following serious condition:

■ Guard Rails - are decayed or damaged so as to no longer be effective.

Deck Planking - along with ballast curbs is used to support the ballast and track section on a ballasted deck timber bridge. The deck must fit tight with no voids which will permit the ballast to fall through. Unless the ballast over the bridge is kept clean allowing water to drain through, moisture will continually be present. This condition promotes dry rot (decay) and the growth of fungus at the bottom of the deck. The continual moist condition also leads to premature decay to the supporting stringers and caps.

When inspecting ballast deck trestles, look for the following serious condition:

■ Deterioration Of The Deck Planking - which allows the ballast to drop through, resulting in a track surface condition.

Stringers - Timber stringers serve the same function as steel stringers in a steel bridge. Timber stringers carry the floor system or deck and transfer the loading to the caps and bents. Since the loading to the stringer presents both bending over the span length and compression over the pile caps, the stringer may fail in horizontal shear by splitting longitudinally and/or crushing over the cap. The inspector should look for horizontal cracks or grain separation over the length of the stringer and for signs of deformation or crushing over the caps. Where grain separation is present during the passage of a train, a mud-like substance will work from the crack. When this situation exists, the stringer loses about 50% of its strength. Care must be taken to properly identify the span number, stringer number, stringer size and number of stringers per rail when entering these defects on the inspection report.

When inspecting timber trestles, look for the following serious condition:

Stringers - that are broken, crushed, decayed or split to the point they can no longer carry the designed load.

### Corbels and Elevation Blocks

Corbels - are used to provide more stringer bearing area over the cap. With the use of corbels, stringers may be butted together over the cap. Where corbels are not used, the stringers must lap over the cap to provide full bearing.

Care must be taken when inspecting structures having corbels to insure that all stringers bear equally on the corbels at the lap points and that the corbels are not cracked, crushed or split.

Elevation Blocks - are used when the bridge locates in a curve. these blocks may be placed under each individual tie or between the cap and stringers so as to elevate the entire stringer panel.

Elevation blocks must not be crushed, cracked or split, and must fit directly under the tie or over the cap. Since the elevation block is wedge shaped, if it is allowed to work out from under the tie or stringer, a difference in track elevation will exist creating a serious track surface problem.

When inspecting timber trestles, look for these serious conditions:

- Corbels that are crushed, cracked or split to the point they are not adequately carrying load.
- Elevation Blocks that are crushed, cracked, split or working out from under the ties so as to create a track surface problem.

### CAPS AND SILLS

Caps - transmit the load carried by the stringers to the piles or framed bent members.

Caps, like stringers, are subject to compressive forces and may also fail in horizontal

shear. Caps may fail by horizontal or vertical cracks, crushing and/or breaking due to unequal pile or framed post loads.

Sills - are used to support framed members of a bent. Track loads, transferred to the cap by the stringer, are transferred to the sill by the framed posts. Sills may rest on mud blocks, concrete piers, pedestals or cut off piles. Sills are subject to the same compressive forces as caps and may fail by horizontal or vertical cracks, crushing, and/or breaking.

When inspecting timber bents, look for these serious conditions:

- Cap is broken, crushed or cracked to the point it can no longer carry the designed load.
- Sill is broken, crushed or cracked to the point it can no longer carry the designed load.

Timber Bents - Since all timber used in permanent bent construction with the exception of a few Greenheart Piles, is treated timber, this discussion will apply only to treated timber. While chemical treatment of timber is highly effective in preventing or retarding decay, the depth of penetration of the preservative will be dependant upon the species of wood being treated. Chemical penetration will rarely or never reach the center of the larger timbers and piles. As previously pointed out, for fungus decay to rapidly progress, moisture must be present. These two factors then explain why decay in treated timber is generally first evident in the heartwood around bolt or spike holes and at field cut ends of timbers or piles. At these locations moisture is more able to reach untreated wood and sustain the growth of fungi which cause decay. It also explains why the centers (heartwood) of timber piles, post, sills, mud sill, etc. tend to first decay at the ground or water line. This leaves a shell of treated wood, where the natural porosity of the wood together with checks and splits permits the intermittently present water and air to reach untreated heartwood in that area of the pile. All of the above is intended to point out the reasons for and possible location of serious decay which may not be evident without close

inspection, including sounding and possibly test boring the members in those areas.

Posts and Piles - Round timber piles may be of any species of wood which will withstand driving and will support the loads imposed. Some common used species include cedar, cypress, douglas-fir, elm, hemlock, western larch, maple, oak, pine, and spruces. Timber piles are classified under three general divisions according to the use intended, as follows:

- Class A Piles suitable for use in heavy railway bridges or other heavy framed construction. The minimum diameter of butt permits, in most cases, use of load bearing timber caps 14 inches in width.
- Class B Piles suitable for use in docks, wharves, bridges, building or other foundations, and general construction. The minimum diameter of butt permits the use of load bearing timber caps 12 inches in width.
- Class C Piles suitable for use in foundations which will always be completely submerged, for cofferdams, false work, or light construction.

Posts and piles are the major load bearing elements of a timber structure and by far the most expensive to repair or replace. It is essential that a careful inspection of these elements be made during the inspection cycle. Due primarily to the fact that there are usually more bridges than time, most timber bridge inspection is performed by a combination of visual observation and soundings.

Visual inspection is important, but unless it is followed by a physical inspection of questionable areas, it is likely that good timber may be marked for removal when other less costly remedial action such as "posting or stubbing", can be taken.

Hammer sounding is probably the oldest accepted method for inspecting timber piles,

posts and parts of a timber bridge and is a vital part of locating suspect members. However, unless the soundings are followed by borings and a more detailed study, good timber could to be removed. Soundings can be misleading in instances where piles have been over-driven and the annual rings have become separated.

METHODS FOR INSPECTING TIMBER PILES - There are three very basic methods for inspecting the timber members of a bridge. They are:

Sound - Sound all timber possible: Caps, stringers, piles, posts, sills, mud blocks, bearing blocks, etc. Carefully inspect areas around drift pins, bolts and other hardware and especially at or slightly below the ground line.

Boring - Bore all timber where soundings indicate possible internal decay. Bore the first hole at the point that sounds the most suspicious, then bore another hole at 90 degrees to the first. If a shell of major proportions is found, several holes may be necessary. Always plug bore holes with a treated plug to prevent entrance of insects and further decay producing spores.

Measure - The shell thickness at each bore hole. Record the information including both the shell thickness and the void depth. Shell thickness indicator tools are available for this purpose.

The ground line area is the most prevalent location for decay and for a careful inspection of the pile. Usually, sounding will provide a clue and if a suspicious area is found, the pick end of the inspection hammer may be used to tear out the thin shell to reveal the inner decay. It may be necessary to dig around the pile for a more detailed inspection. This is especially important when pumping, lateral movement and/or swaying is evident with the passage of a train Piles may appear solid above ground and be completely destroyed one foot below the surface. Piles located in salt or brackish water are susceptible to marine borers and must receive careful attention during inspection cycles.

When inspecting timber bents, look for the following serious conditions:

- Any Bent out of plumb or skewed
- Pumping, Lateral Movement, etc. during the passage of a train
- All Hardware for proper application and any improperly applied or missing parts
- Any Pile or Post broken, crushed, decayed through 50% or more
- Any Defect that renders a pile useless as a load carrying element of the bridge

Bracing - Is necessary for the stability of a timber structure. Although bracing members are secondary members, they are necessary for the total stability of the structure. A good bracing pattern prevents movement both laterally and longitudinally. As a result of many years of bridge construction, a general pattern for bracing has evolved resulting in a design that is both stable and practical. AREA accepted practice states that for all timber trestles up to 12 - 15 feet in height, only cross bracing is necessary. For trestles over this height, cross, sash and girt bracing at every bent and longitudinal bracing between every second bent must be applied.

Timber bracing is susceptible not only to decay, but to mechanical action at the bolt locations. This is due to vibration and movement with the passage of trains. As bracing becomes loose, damage will occur to other members of the structure, especially those with excessive unbraced length, etc. Girts not properly secured will permit the bent to get out of plumb and move longitudinally. Loose sash and cross bracing will allow the structure to sway and move laterally. While pile trestles depend upon anchorage of the piles in the ground for stability, framed trestles rest upon concrete piers, mud blocks, etc., and the bracing is essential for the total stability of the structure.

When inspecting timber bents, look for the following serious conditions:

- Bracing broken, decayed or loose affecting the structural stability of the bridge.
- Insufficient Bracing additional bracing must be applied

Footwalks and Refuge Bays - Walkways and refuge bays may become hazardous as a result of decay or missing planks, etc. Renewal of footwalks and refuge bays usually are made with the renewals. Fastening devices and handrails must be inspected to insure they are properly secured.

When inspecting timber trestles, look for these serious conditions:

■ Walkways or Refuge Bays - that constitute a safety hazard and require immediate repairs.

### G. BEARING BLOCKS AND SHIMS

Bearing Blocks - are used at the top of timber towers to make transition from a timber structure to a steel structure. Since these blocks are subject to compressive forces, failure will be due to decay or crushing.

**Timber Shims -** are used to provide good bearing between stringers and caps, caps and piles, and between steel spans and bearing blocks.

When inspecting timber trestles, look for the following serious conditions:

- Bearing Blocks crushed or decayed especially at the ends of steel spans.
- Missing Shims allowing movement between caps and piles and between steel spans and bearing blocks

### Mud Sills and Mud Blocking

Mud Sills - are laid upon rock or solid bearing soil and are placed in groups of three or four at right angles to the bridge alignment.

Mud Blocking - is placed at right angles to and upon the mud sills. The blocking is usually place din groups of three or four directly under the framed bent sill and under each framed post.

When inspecting timber trestles, look for the following serious conditions:

- ■Mud Sills Decayed allowing the sill to collapse or crush under the mud blocking.
- ■Mud Blocking Decayed allowing the blocking to collapse under the framed sill causing the sill to crush or split under the framed bent posts.

Timber Backwalls - Deterioration of timber backwalls will permit the loss of ballast and/or the embankment. This may result in a dangerous track condition which can affect train operations. Backwalls are usually constructed of piles and timbers which are designed to hold the roadbed and embankment. Since this part of the structure does not carry load, it is usually overlooked when other repairs are made to the bridge.

When inspecting the trestle approach, look for this serious condition:

■ Backwall - failed affecting safety of train operation

		cros				
BENT	NO 1-	2	PILE	LAYOUT 4	5	6
•	_O	0	0	0	0	O
	_O_	0	0	0	0	0
	_O_	0	0	0	0	
•***	_O_	0	0	0	0	
	_O_	0	0	0	0	
		0	$\bigcirc_{00}$	0101	0	0



MAXIMUM DAMAGE



90-95 % LEMAINING MAXIMUM DAMAGE



55-85% REMAITING MAXIMUM DAMAGE



25-50% LEMAINING



95-100 % REMAINING MINIMUM DAMAGE



90-95 % REMAINING MINIMUM DAMAGE



55-85% REMAINING MINIMUM DAMAGE



0-25% REMAINING

CROSS SECTIONS SHOW PERCENT OF REMAINING AREA

DIAGRAMS OF PILE DAMAGE RATINGS

OSMOSE - MARINE DIVISION

contra

# TIMBER INSPECTION TOOLS

### A. SPECIAL TESTING/TOOLS

Methods for Detecting Exterior Deterioration - Exterior deterioration is the easiest to detect because it is often readily accessible to the inspector. The four methods or tools most commonly used include visual inspection, probing, the pick test, and the Pilodyn. The following are methods, tools and equipment for conducting inspection of timber bridges:

**Visual Inspection -** The simplest method for locating deterioration is visual inspection. The inspector observes the structure for signs of actual or potential deterioration, noting areas for further investigation.

Probing - Probing with a moderately pointed tool, such as an awl or knife, locates decay near the wood surface by revealing excessive softness or a lack of resistance to probe penetration. Although probing is a simple inspection method, experience is required to interpret results. Care must be taken to differentiate between decay and water-softened wood that may sound softer than dry wood.

Pick Test - The pick test is one of the simplest methods for detecting for detecting surface decay. A pointed pick, awl or screwdriver is driven a short distance into the wood and used to pry out a sliver. Sound wood splinters when broken across the grain. Decayed wood breaks across the grain or crumbles into small pieces.

**Pilodyn** - Like the pick test, the Pilodyn is also used to detect surface damage. The Pilodyn is a spring-loaded pin device that drives a hardened steel pin into the wood. The depth of pin penetration is used as a measure of the degree of decay.

**Sounding -** Sounding the wood surface by striking it with a hammer or other object is one of the oldest and most commonly used inspection methods for detecting deterioration. Based on the tonal quality of the sounds, an experienced inspector can

interpret dull or hollow sounds that may indicate the presence of large voids or decay. Sounding provides only a partial picture of the extent of decay present and will not detect wood in the intermediate stages of decay. When suspected decay is encountered, it must be verified by other methods such as boring or coring.

Moisture Meters - As wood decays, certain electrolytes are released from the wood structure and electrical properties of the material are altered. Several tools can be used for detecting decay by changes in electrical properties. One of the simpler tools is the resistance type moisture meter. This unit uses two metal probes (pins) driven into the wood to measure electrical resistance, and thus, moisture content.

Shigometer - The shigometer is a device compared to the moisture meter. It uses a pulse current to measure changes in electrical conductivity associated with decay. A small hole is drilled into the wood and a small twisted wire probe connected to a meter is inserted into the hole. As the probe encounters areas of decreased resistance, the meter reading drops. Several studies show that the Shigometer is a reasonable method for detecting decay if it is used under proper conditions by a trained operator.

**Drilling and Coring -** Drilling and coring are the most common methods for detecting internal deterioration in bridge members. Inspectors may find drilling best for initial inspection until some evidence of decay is found. When decay is detected,, coring may be preferred for defining the limits and providing extraction samples for further examination.

**Drilling** - Drilling is usually done with an electric/gasoline power drill or hand-crank drill equipped with a 3/8", 1/2" or 3/4" bit. Power drilling is faster, but hand drilling allows the inspector a better feel and may be better in finding pockets of decay. The inspector drills into the structure noting zones where the drilling becomes easier and observes the drill shavings for evidence of decay. All holes must be plugged with treated wood or plastic plugs.

Coring with Increment Borers - Increment borers provide information as to the presence of decay pockets and other voids. Coring produces a solid wood core that can be examined for evidence of decay. The core can also be used to obtain an accurate measure of the depth of preservative penetration and retention.

Shell Depth Indicator - The shell depth indicator is a metal bar notched at the end and inscribed in inches. It is inserted into the inspection hole and pulled back along the hole sides. As it moves along the wood, the hook will catch on edges of voids. In this way, the inspector can note the depth of solid shell(s) which can be used to estimate residual wood strength.

Sonic Evaluation - Sophisticated sonic tests for evaluating wood condition have been developed in recent years. Several of these methods, including sonic wave velocity, acoustic emission and stress wave analysis have been investigated. The simplest of the sonic techniques uses an instrument to measure the velocity changes of a sound wave moving across the wood. Several sonic methods are nearing commercialization and offer a significant advancement in decay detection capabilities; however, where defects are detected, other methods must still be used to determine the cause.

X-Rays and Tomography Scanners - X-rays were once commonly used for detecting internal voids in wood. As the x-rays passed through the wood, the presence of knots or other defects alters the density of the resulting radiograph. The high cost of equipment, along with the safety factors associated with the use of radiation and the need for expert interpretation of results have largely eliminated its use in wood. Despite these problems, x-rays are useful for detecting insect and marine borer infestations in woods.

# TIMBER BRIDGE DETAILS

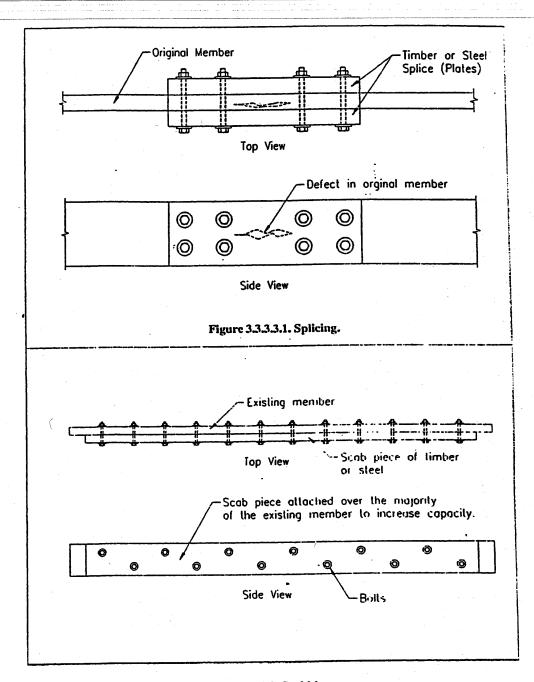


Figure 3.3.3.2. Scabbing.

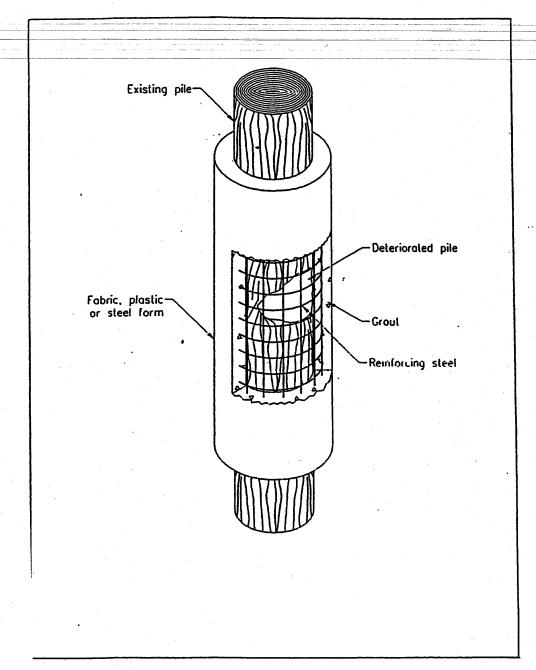


Figure 3.3.3.3. Pile restoration using cast in place reinforced concrete jacket.

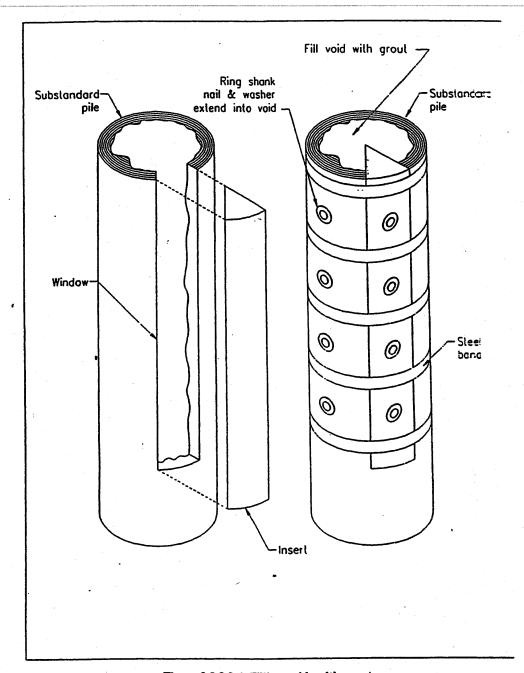


Figure 3.3.3.4. Filling voids with grout.  $0\,0\,0\,1\,1\,0$ 

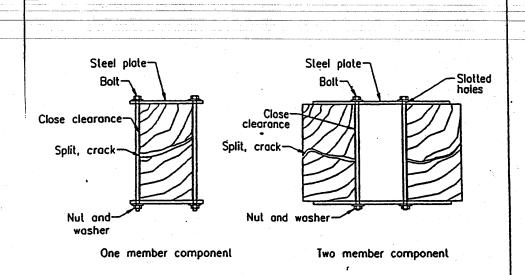


Figure 3.3.3.5A. Clamping.

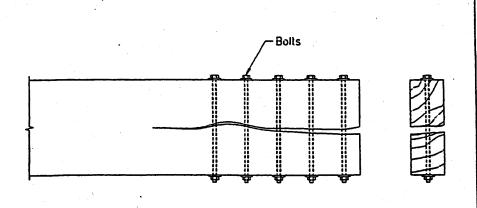


Figure 3.3.3.5B. Stitching.

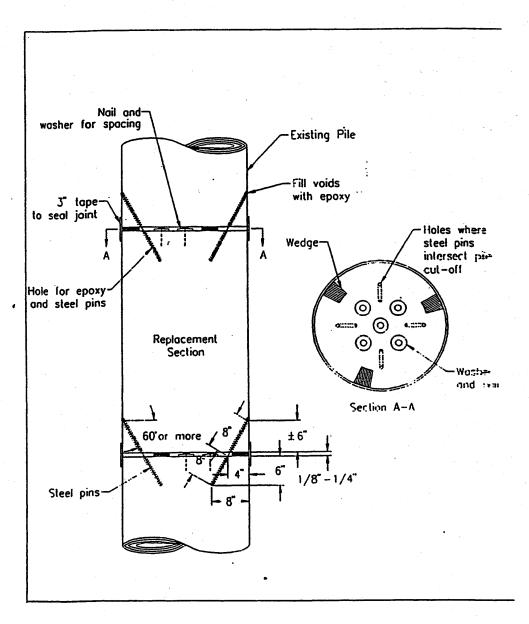
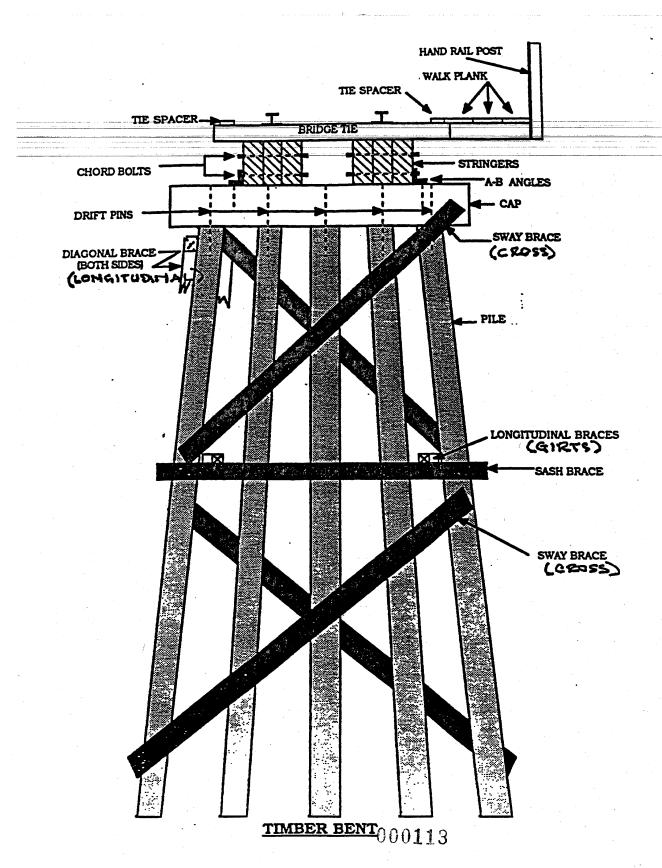
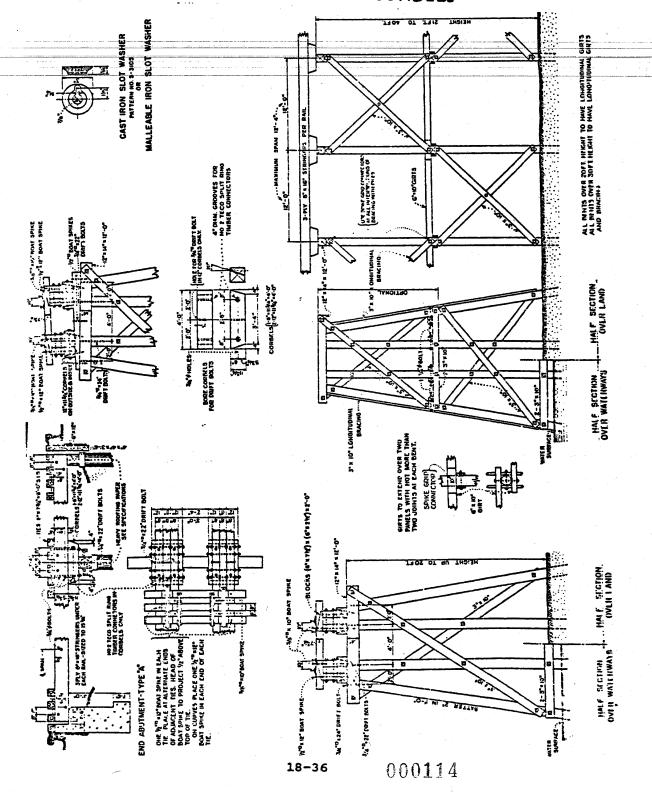


Figure 3.3.3.6. Schematic diagram of pile posting.



# PILE TRESTLE WITH CORBELS



## 3.4 'TYPICAL PLANS FOR TIMBER RAILWAY BRIDGES

(a) Plans for open-deck pile and framed trestles, multiple-story trestles, and ballasted deck pile and framed trestles.

Recommende	d Practice (Plans) for:		Page
	General Notes		7-3-14
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J	(to be used where required)		
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	(to be used where required)		
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•	(to be used where required)		
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· ·	(to be used where required)		
Fig. 3.4.17	Creosoted Timber Pile Piers for Long Spans, E60 Loading.		7-3-31
_	Pier for 150-ft. and 80-ft. Spans		
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_	Pier for 150-ft. Span and Trestle Approach		

<sup>&</sup>lt;sup>1</sup>References, Vol. 23, 1922, pp. 709, 1148; Vol. 24, 1923, pp. 773, 1196; Vol. 37, 1936, pp. 667, 704, 1036, 1038; Vol. 38, 1937, pp. 183, 624; Vol. 45, 1944, pp. 203, 596; Vol. 49, 1948, pp. 272, 672; Vol. 60, 1959, pp. 556, 1081; Vol. 63, 1962, pp. 455, 684; Vol. 89, 1988, p. 106.

#### **GENERAL NOTES**

For various combinations of loading, panel lengths, number and size of stringers, number of piles and permissible working stresses, see Part 2, this chapter.

All lumber and piles should be pressure treated in accordance with AREA Chapter 3.

All lumber should be framed and bored before treatment wherever possible.

Holes should be bored the same diameter as the bolt and 1/8 in. less than the nominal diameter of drive spikes.

Lumber cut after treatment should be painted with three coats of hot creosote oil.

Holes bored after treating should be treated with hot creosote oil applied with a pressure bolt hole treater.

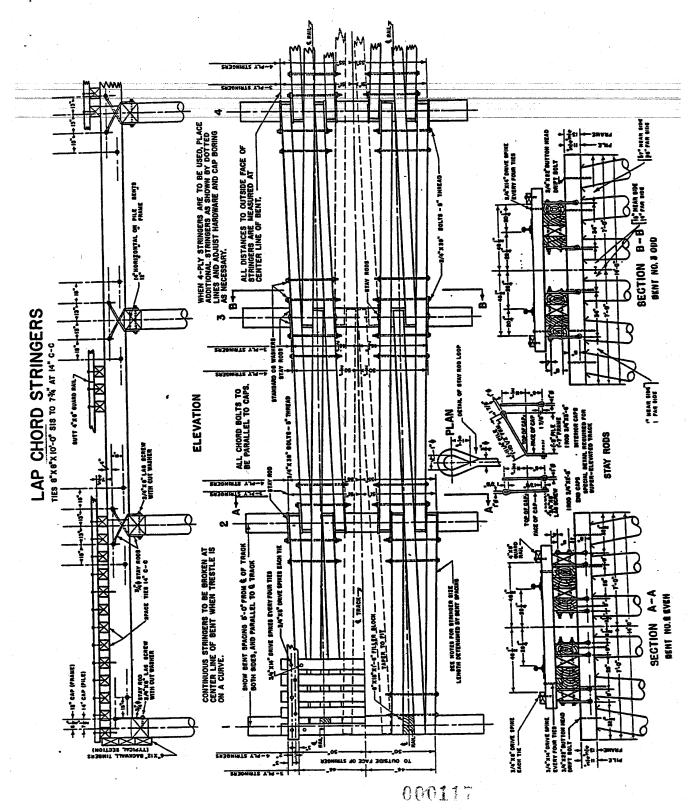
Each bolt should have a square head, suitable type lock nut and 2 OG washers, with a double-coil spring when shown on the plans.

Trestles on curves should be built to follow the curve. Bents should be placed on radial lines and spaced to maintain standard panel lengths under the outside stringer.

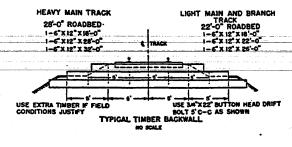
Crushed-rock ballast should be hard, durable stone and should conform to size No. 4 of the National Bureau of Standards.

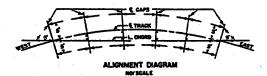
For use of protective coating for hardware see Part 1.2—Specifications of Fastenings for Timber Trestles, this chapter.

For use of inner guard rails see Part 3.6, this chapter.



8-32





ALL TIMBER IN TRESTLE TO BE PRESSURE TREATED
WITH APPROVED WOOD PRESERVATIVE.
TIMBER CUT OR BORED IN FIELD TO BE GIVEN TWO
COATS OF HOT CREOSOTE OIL.
SUPERLEVATION FOR CURVES TO BE OBTAINED BY
USING ELEVATION BLOCKS.
ALL DIMENSIONS OF BRACING TIMBERS ARE NOMINAL
SIZES.

SWAY BRACING MAY BE OMITTED FOR BENTS 8'-0" AND UNDER IN HEIGHT.

STANDARD SPACING OF BENTS IS 12'-0' MEASURED
AT CENTER LINE OF TRACK.

NOMINAL SIZE OF STRINGERS - 8"X16"- STRINGERS
TO BE DAPPED OR SIZED OVER CAPS TO IS 12'.

DEPTH OF CAPS TO BE SIZED TO II 34" FOR PILE
BENTS AND IS 34" FOR FRAME BENTS.
EACH REQUISITION FOR STRINGERS SHALL BE
ACCOMPANIED BY SKETCH IN TRIPLICATE SHOWING THE
SPACING OF BENTS AND POSITION OF STRINGERS.
EACH STRINGER SHALL BE NUMBERED TO PROVIDE
AN ERECTION MARK.
WHEN THE TRESTLE IS ON A CURVE AN ALIGNMENT
HAGRAM MUST BE SHOWN ON THE STRINGER PLAN.
ALL HOLES BORED FOR HARDWARE SHALL BE 13/16"
DIAMETER.
STAY RODS SHALL BE FURNISHED STRINGHT WITH
THE LOWER LOOP FORMED. THE FORMING OF THE UPPER
LOOP AND BENDING SHALL BE DONE IN THE FIELD.
ALL BOLTS TO HAVE SQUARE OR HEX HEADS AND
NUTS AND TWO QS WASHERS FOR EACH BOLT.

USE SPIKE GRID TIMBER CONNECTORS FOR
BRACKING TO PILES AND CAPS.

HARDWARE TO BE GALVANIZED.
ALL BOLTS TO HAVE SQUARE OR HEX HEADS
AND NUTS WITH 2 EA: CAST IRON Q.G. WASHERS EACH
BOLT.

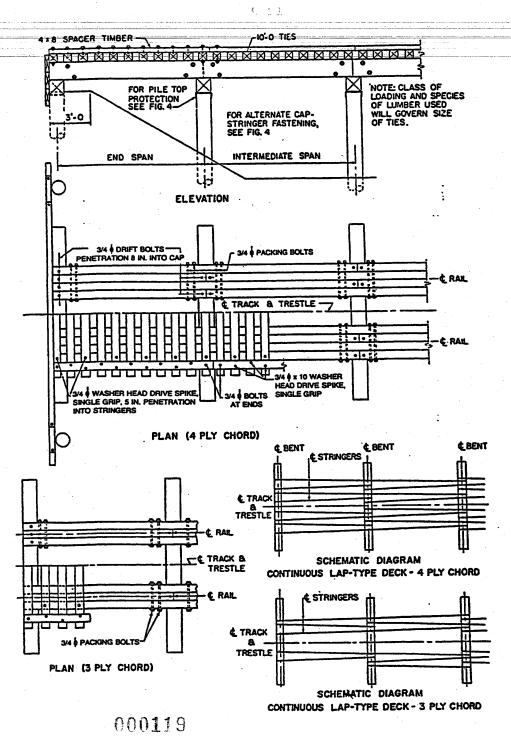


Fig. 3.4.1 Floor Plan for Open-Deck Trestles

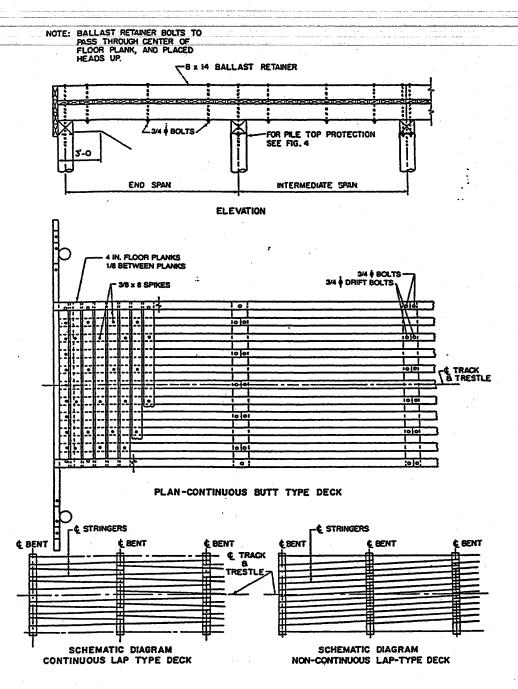
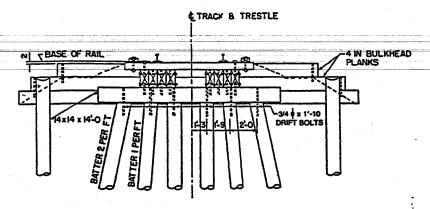
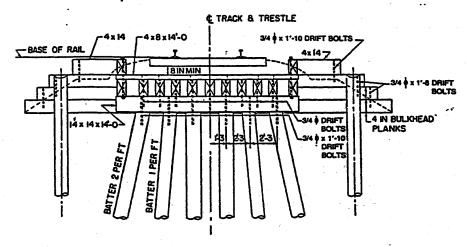


Fig. 3.4.2 Floor Plan for Ballasted-Deck Trestles



BULKHEAD, 6 PILE END BENT & OPEN TIMBER DECK



BULKHEAD, 6 PILE END BENT & BALLAST TIMBER DECK

Notes:

Length of bulkhead planks should conform to the embankment cross-section.

Wing piles may be omitted when heavier planks than shown are used.

For ballasted deck trestles having 2 in or less superelevation, bents may be cut level and superelevation taken up in ballast.

TOP OF LOW RAIL

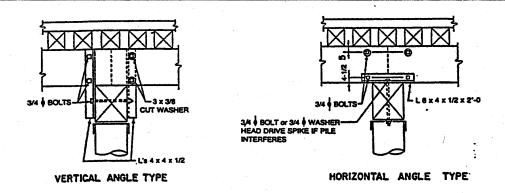
SUPERELEVATION

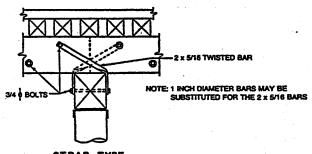
WORKING POINTS FOR REQUIRED

HORIZONTAL LINE

2-0 2-6 2-6 2-6 2-6

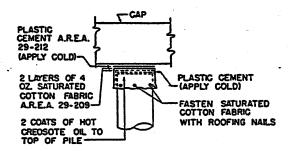
Fig. 3.4.3 Bulkheads and Miscellaneous Details





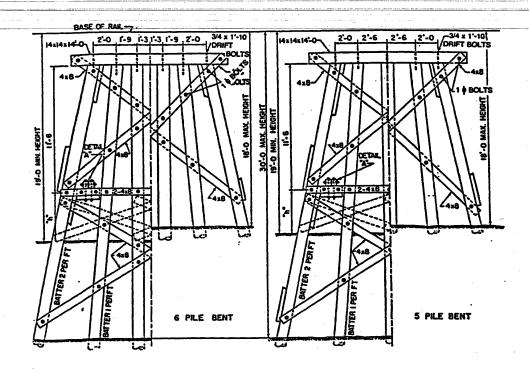
STRAP TYPE

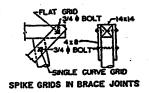
NOTE: THE ABOVE CAP STRINGER
FASTENINGS MAY BE USED
AS AN ALTERNATE TO DRIFT
BOLTS AS SHOWN IN FIG. 1



PILE TOP PROTECTION

Fig. 3.4.4 Cap Stringer Fastening and Pile Top Protection 000122





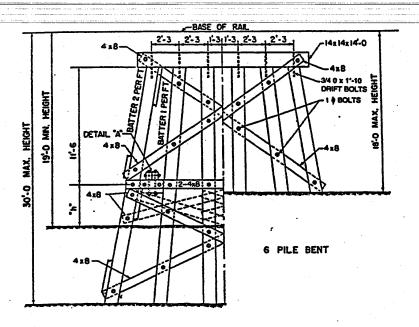
NOTES: 3/4 DIA. BOLTS AND SPIKE GRIDS MAY BE USED INSTEAD OF I DIA. BOLTS WITHOUT SPIKE GROSS USE DOUBLE COIL. SPRING WITH SPIKE GRIDS. DETAL "A" ON FIG. 3.4.7

FOR HEIGHT OVER 30 FT, ADD ONE MORE SASH BRACE 23 FT 6 BELOW BOTTOM OF CAP AND CORRESPONDING LINES.

WHEN "h" IS LESS THAN 8 FT. ARRANGE BRACING AS SHOWN BY DOTTED LINES.

FOR BASE OF RAIL TO GROUND LINE LESS THAN THAN 8 FT. OMIT SWAY BRACING.

Fig. 3.4.5 Bent Details for Open-Deck Pile Trestles



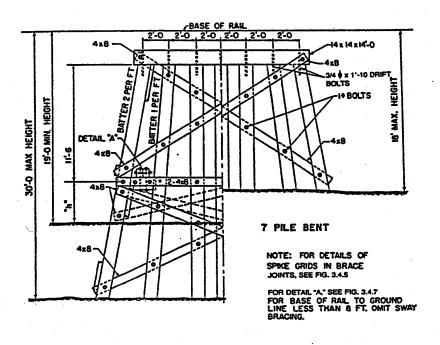


Fig. 3.4.6 Bent Details for Ballasted-Deck Pile Trestles

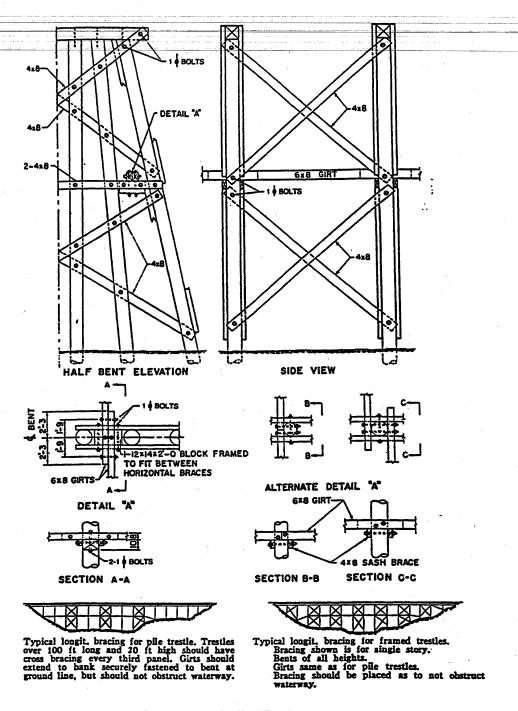


Fig. 3.4.7 Longitudinal Bracing

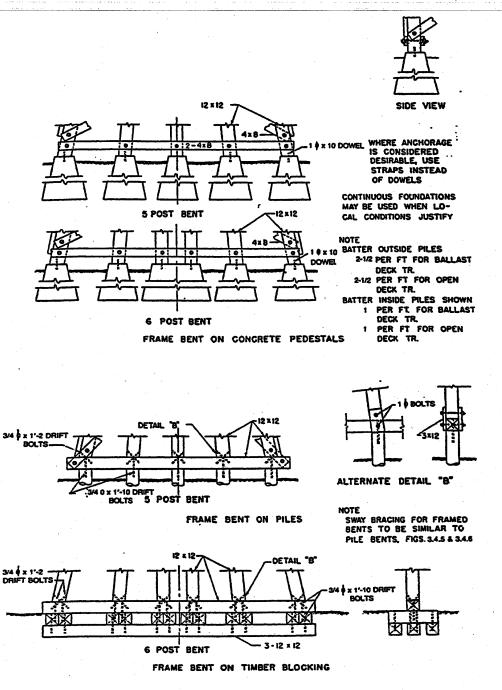


Fig. 3.4.8 Details of Footings for Framed Bents

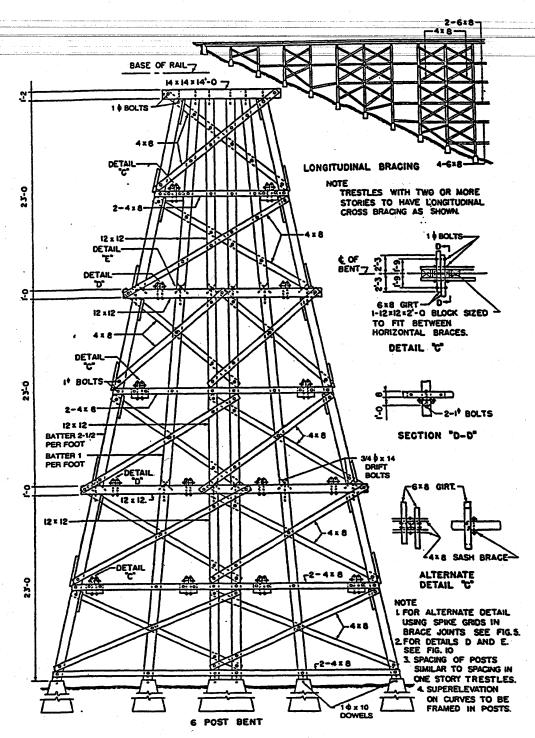


Fig. 3.4.9 Multiple-Story Trestle Bents CO0127

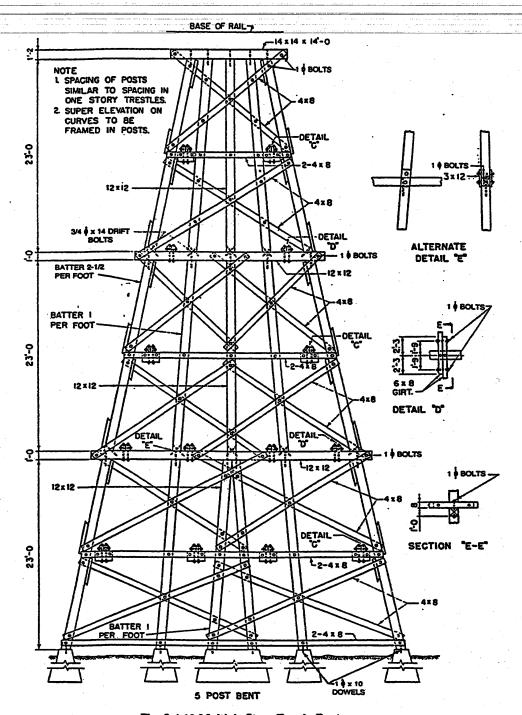


Fig. 3.4.10 Multiple-Story Trestle Bents

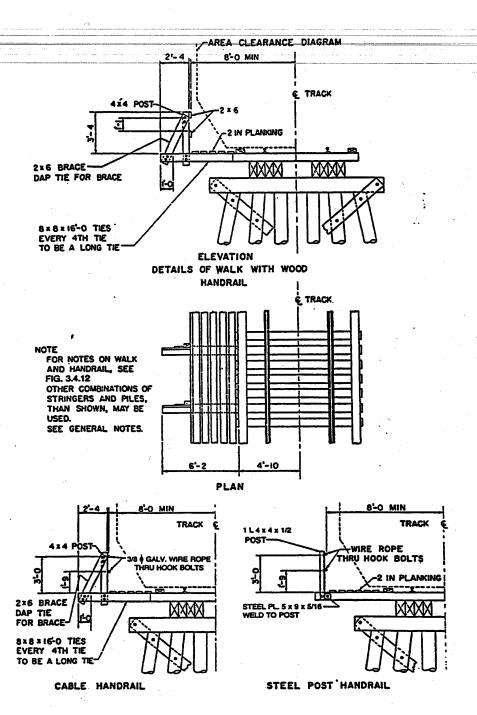


Fig. 3.4.11 Walk and Handrail—Open-Deck Trestles—To Be Used Where Required 000129

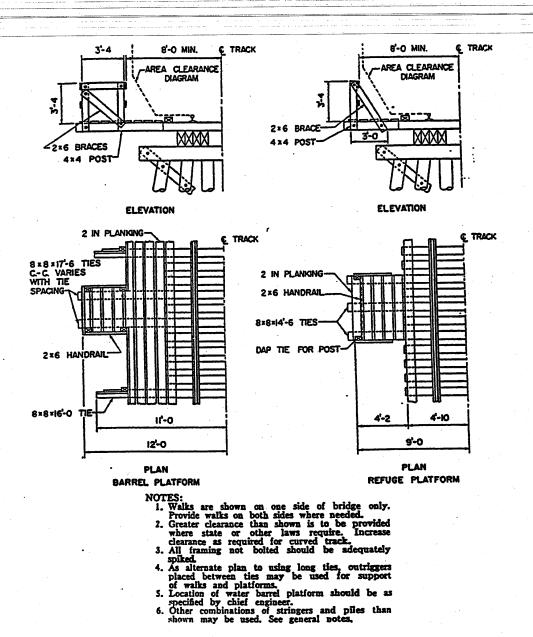
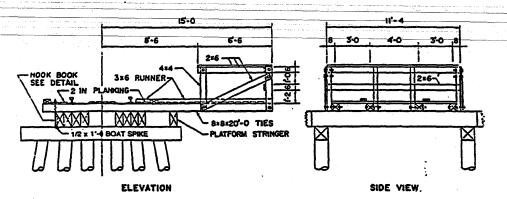


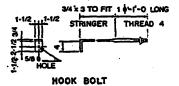
Fig. 3.4.12 Water Barrel and Refuge Platform—Open-Deck Trestles—To Be Used Where Required



### SCHEME A USING LONG TIES

NOTE: Where length of motor cars in use requires longer platform, additional support for long ties or a platform separate from trestle should be provided.

Other combinations of stringers and piles than shown may be used. See general notes.



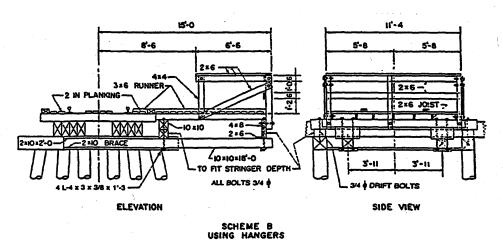


Fig. 3.4.13 Track Car Platforms-Open-Deck Trestles-To Be Used Where Required

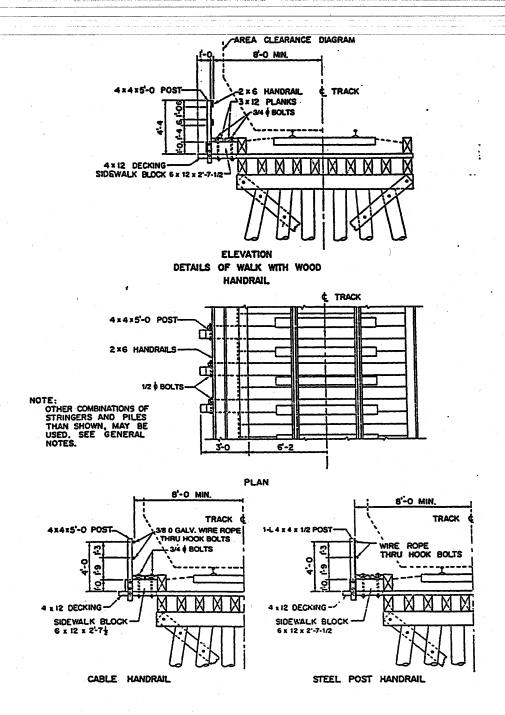
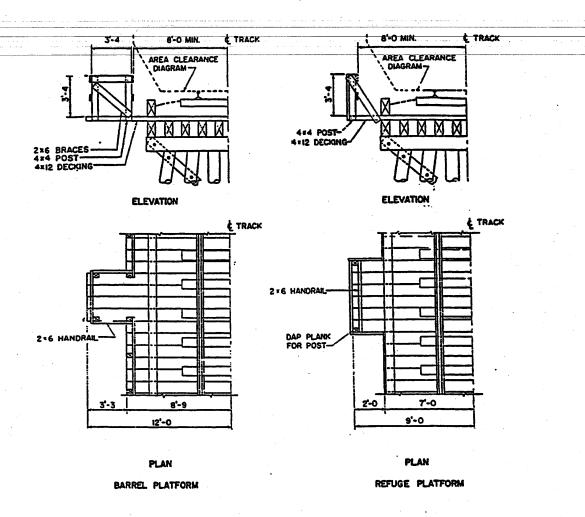


Fig. 3.4.14 Walk and Handrail-Ballasted-Deck Trestles-To Be Used Where Required



- NOTE:

  1. Walks are shown on one side of bridge only. Provide walks on both sides where needed.

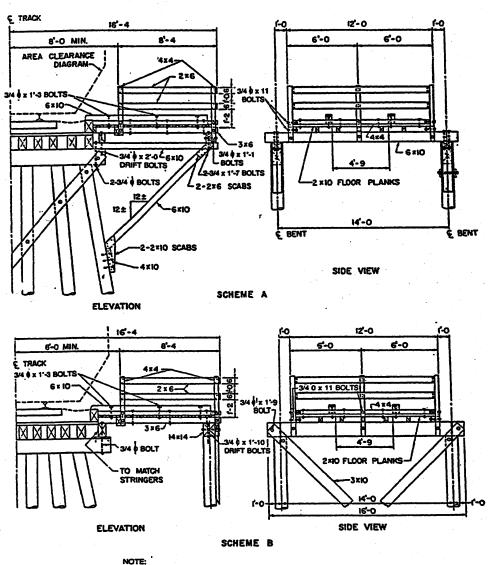
  2. Greater clearance than shown is to be provided where state or other laws require. Increase clearance as required for curved track.

  3. All framing not bolted should be adequately spiked.

  4. Other combinations of stringers and piles than shown may be used. See general notes.

Fig. 3.4.15—Water Barrel and Refuge Platform—Ballasted-Deck Trestles—To Be Used Where Required

7 2 W



NOTE:

DETAILS SHOWN ARE FOR 14'-0 TRESTLE SPANS.

FOR OTHER SPAN LENGTHS, VARY DETAILS

ACCORDINGLY.

FOR NOTES ON WALK AND HANDRAIL, SEE FIG. 3.4.15.

OTHER COMBINATIONS OF STRINGERS AND PILES

THAN SHOWN MAY BE USED. SEE GENERAL NOTES.

Fig. 3.4.16 Track Car Platform—Ballasted-Deck Trestles—To Be Used Where Required

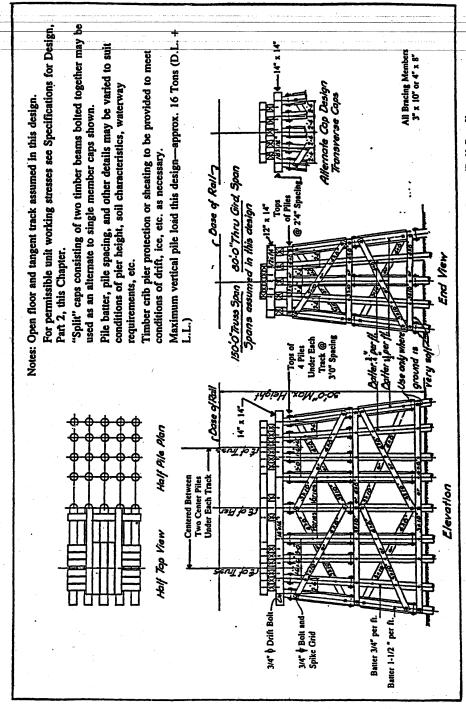


Fig. 3.4.17-Recommended Practice for Creosoted Timber Pile Piers for Long Spans, E 60 Loading

Piers for 150-ft. and 80-ft. spans.

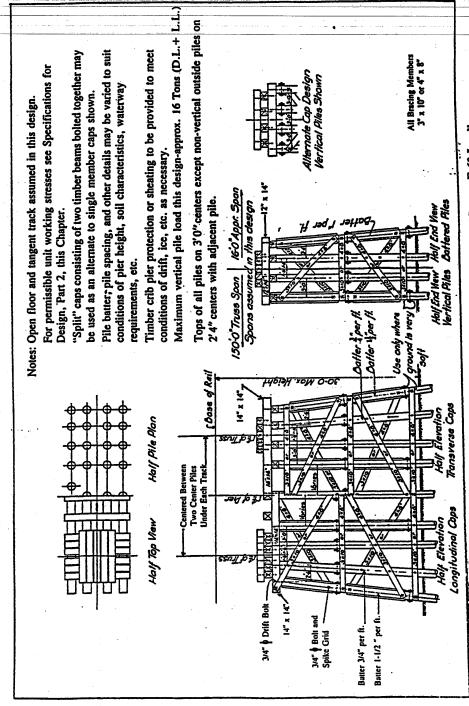
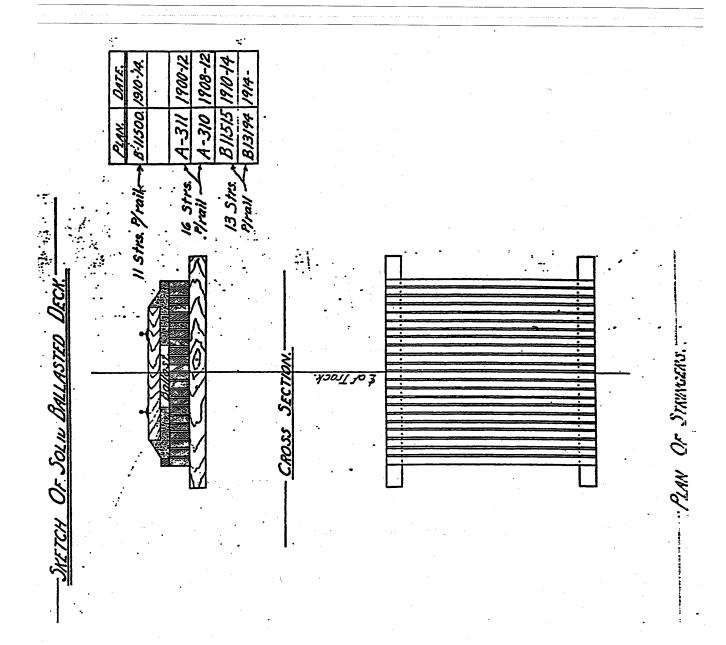


Fig. 3.4.18 Recommended Practice for Creosoted Timber Pile Piers For Long Spans, E 60 Loading. Pier for 150-ft. Span and Trestle Approach.



## STEEL BRIDGE INSPECTION REPORT

INCATION: NISTRICT:	: 218.50 BRIDGE NUMBER: 218.5 DIVISION: NS SUBDIVISION: HEMPHIS TERMINAL
COUNTY: SHELBY	TOUN: AULON ST: TN 4 SPAN TYPES: DPG LENGTH: 180.00 DF - 1794 UOLF RIVER ROAD NAME:
SPANS: 88 THRU 90 OF 13	4 SPAN TYPES: DPG LENGTH: 180.00 DF . 1794
NU, (KACKS: 1 CKUSSIMU:	INSPECTOR: N. L. SMITH HOW INSPECTED: VI
DISTE THOUSED, AND AND	SHOP ENDOTE HE ET SHAFF
ITEH INSPECTED	NO CLASS REMARKS
GENERAL	
MOUARIE RRIDGE TYP	1 SPAN 88 IS SHORT BEAN SPAN
rusuuri rounttiou	2 B ORTET BETTING BAD
SLOPES	3 NA 4 B DRIFT
GENERAL CLEAN	4 B DRIFT
MCI, SPRINT, LIGHTNET, ETC.	
PAINT COND & YEAR PAINTED	6 A 5/59
TRACK	
LUGA	
CUR (Y/R) R	7
APPROACH - SURF/ALIGN	8 B -ALIGNMENT
BRIDGE - SURF/ALIGN TRACK - RAIL ANCHORS	9 B
TRACK - KAIL ANCHUKS	10 8
BRIDGE - RAIL ANCHURS	12 B
CLIPS - X EFFECT	12 B 13 NA 14 NA SP.89, 9 TIES IN ROW ROTTEN
HOOKS - X EFFECT	14 NA SP.89, 9 TIES IN ROW ROTTEN
TIES-COUD & YE INSTALLED	15 C1 TIES SHOULD BE PROGRAMED ASAP OR TAKEN D.O.S.
TIE PAOS	16 CI SÉVERAL FAILED. 17 CI
RAISING PIECES	17 CT
THICK GURKU KAIL	17 C1 18 C1 19 NA 20 B
INNER GUARD RAIL RAIL 112	20 B
PIERS, ABUTHENTS	
FOUNDATION CN	21 A CONC.PILE BENTS/TOWERS-10 PER TOWER
RUUINENIS UN	21 A CONC.PILE BENTS/TOWERS-10 PER TOWER 22 NA 23 NA 24 B
HRINGE SEATS CN	24 B
BRIDGE SEATS CH	25 NA
VING WALLS	26 MA
PARAPETS	27 NA
POINTING **	28 NA
E DOM DECY	
FLOOR, OECK	
FLOOR BEAN CONNECTIONS	29 NA
FLOOR BEAN BRACKETS	30 NA
Committee of the Commit	31 W
STRINGER CONNECTIONS	32 NA
STRINGER FLANGES/VEBS	33 MA

ż	

EXHIBIT B

STRINGER LATERAL SYSTEM	34 NA	
BALLAST DECK	35 NA	
BALLAST CURBS	36 NA	• •
BALLAST DEPTH	37 NA	
	38 NA	
DRAINS	39 NA	
WALKWAYS (L/R/B/C)		
HANDRAILS (L/R/B)		
	42 NA	
REFUGE BAYS	42 NB	. /
GIRDERS, TRUSSES		
TOP FLANGE/CHORDS	43 B	RUST
(D) (Linibry Michiel		
TOP COVER PLATES	45 B	ON SPAN 89 & 90 NONE ON SPAN 88
BOTTON COVER PLATES	44 B 45 B 46 B	SAME AS # 45
	47 NA	
DATE OF COUNTY	48 NA	
WEBS/SPLICES	49 B	
END/INTERMED STIFFS	50 B	
TOP LATERAL SYSTEM		RUST ON ANGLES AND LAT.PLTS.
BOT LATERAL SYSTEM		<u> </u>
	53 NA	
CROSS/SWAY FRANCS	54 C3	FEW LOOSE RVTS. IN BOTTON GUSSET, SPAN 89 AND 90
PORTALS	55 NA	
PINS/NUTS/BOLT/RIVS/WELDS	56 B	
SHOES/SOLE PLTS/BOLTS	57 B	DIRTY/RUST
MASY PLTS - FILLER PLTS	58 8	TIRTY
•		
TOWERS, BENTS		
COLUMNS/POSTS C	59 NA	
PILES CH BENT CAP	61 NA	
TIMBED READING RUCCES	A2 NA	医透透 化多点 化氯化甲基酚 老子 医多洲角的 医新石虫 医线线
TOP BEARING PLATES TRANSVERSE BRACING LONGITUDINAL BRACING	63 NA	
TRANSVERSE BRACING	64, A	COLLARS
LONGITUDINAL BRACING -	65 NA	
STRUTS/DIAGONAL BRACES	AN 88	
こうしょ しきょうしょ はいけいじょう かいりょく (4) こうしょり (3) あっ		ウェームも しょうしゅう 一般には、日本の大学的では、実際がありませばは、例とは、日本の大学の大学の大学の大学の大学の大学の大学の大学の大学の大学の大学の大学の大学の

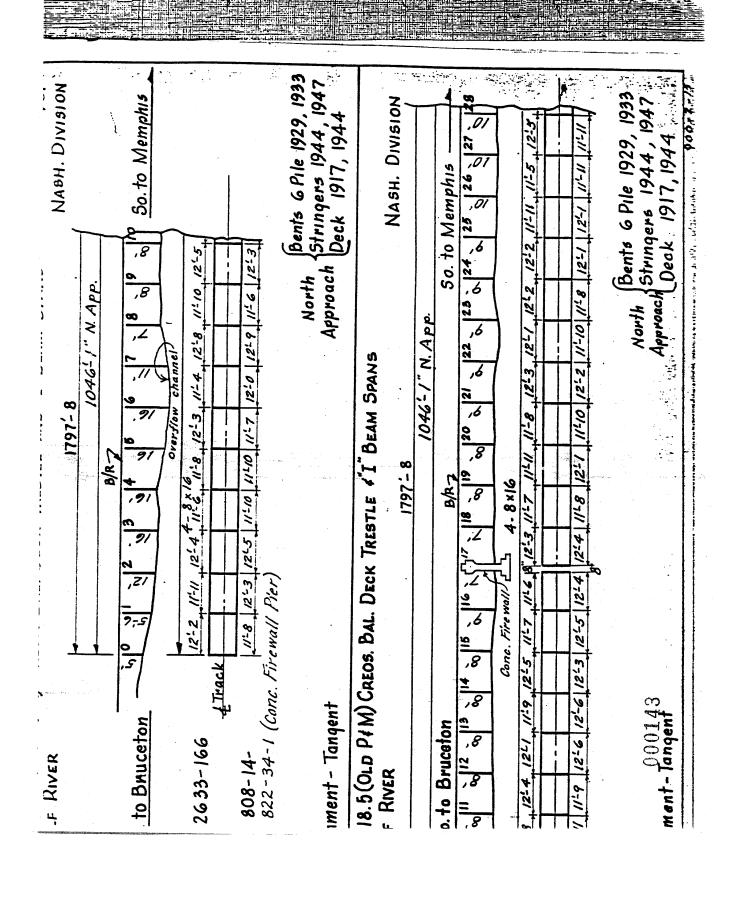
## TIMBER BRIDGE INSPECTION REPORT

PREFIX: ONI NILEPOST	T: 218	.50 BRIDGE NUMBER: 218.5 ION: NS SUBDIVISION: MEMPHIS TERMINAL
LOCATION: DISTRICT:	014121	TOUR! AND SUBSTITUTION; DEBUTATO TERRITRE
COUNTY: SHELBT	A CDAN	TOUN: AULON - ST: IN TYPES: TS LENGTH: 1044.00 DF 1794 EVER ROAD NAME:
SPRNS) 1 JAKU 07 UP 13	อร อยหก ยกเ <b>ยื่อ</b> ใ	THED DOAD NAME.
MU, TRACKO: 1 ERUBBIRU:	WOLL KI	SPECTOR: N. L. SMITH HOW INSPECTED: VI
DRIE INSPECTED: 01/07/01	7114	MEDION, M. L. DHIM HOW INDICATE TI
ITEN INSPECTED	NO CEA	SS REMARKS
Tien Indrection	iin dev	ACIMIANU
GENERAL		
and the second s		
CUANNEL CONDITION	1.8	SHALL TREES-BUSHES NEED TO CLEAN BUSHES FROM UNDER BRIDGE
DI ADEG	2 0	within them the trace are
CENEDAL CLEAN	3.8	NEED TO CLEAN BUSINES ERON UNDER BRIDGE
WENT EDDTHY LIGHTNET FIRE	4 NA	****** PRINT SP.1,88 AND 91 *******
1107 for Water Je routiner, Je to .		***************************************
TRACX	•	
CUR (YZN) N	5	.!!!!!!!! LADDER AT BENT 64 !!!!!!!!
APPROACH - SURF/ALIGH	6 B	***************************************
DRIDGE - SURF/ALIGN	7 B	***************************************
TRACK - RAIL ANCHORS	8 B	***************************************
BRIDGE - RAIL ANCHORS	9 B	W
BOLTS - X EFFECT	10 NA	
CLIPS "- X EFFECT	ii NA	***************************************
HOOKS - X EFFECT	12 NA	
TOTAL MANUELL AND THEFT ALL TO	(5 D	TDATV.
TIE PADS	14 NA	
OUTER GUARD RAIL	15 NA	
INNER GUARO RAIL	16 NA	The state of the s
rail 112	17 B	
PIERS, ABUTHENTS		TRHCK
- MINISTERNI	(n re	
OUNURITUR	10 62	James and Arthur and A
HOUINCHID	20 6	COUR PTERS BENT 17 42 AA CONC. PTI F BENT 87
DOTINGE CEATE	21 01	REPLACE CAPS HEAVY DECAY IN NUNEROUS LOCATIONS
RACK DALIS	22 C5	
ITNG VALLS	23 NA	CONC.PIERS BENT 17,42,66 CONC.PILE BENT 87 REPLACE CAPS. HEAVY DECAY IN NUMEROUS LOCATIONS
NUD SILLS/BLOCKS	24 NA	
BENTS, PILES,		아이들 가게 되고 있다고 말했다면 하다 하다.
RAKED/DRIVEN D	25 🦼	
	26	
	27 NA	
ILES THE	A	SEE SUPPLEMENT FOR BAD PILE
JENT CAPS TC	29 C1	MANY NEED REPLACED. LOTS OF DECAYED AREAS.
SLIP CAPS	30 NA	ALPH ATTER MET BUILD FORTE
ASH/GIRTS	31 C3	SASH GIRTS NOT ON ALL BENTS.
· 在 · · · · · · · · · · · · · · · · · ·		
ONGITUDINAL BRACING	33 NA	

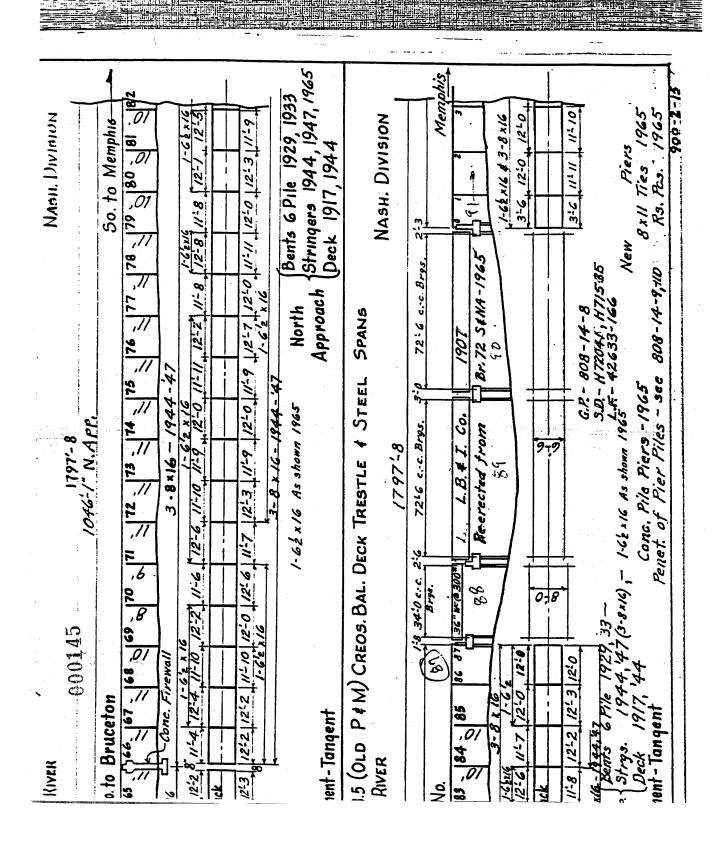
CAP BLOCKS/STEEL S BOLTS/BOUGLS/LAG S OSMOSE/DATE MOVEMENT UNDER LOA	CREUS	35 36	NA C3 NA	
DECK				
STRINGERS/NO	ii	38	Ci	HEAVY DECAY IN CERTAIN AREAS, INCLUDING BEARING
CORBELS/HEIGHT		39	МA	
ELEVATION BLOCK/HT		40	ŇÁ	***************************************
BALLAST DECX	KT	41	C3	REPLACE VARIOUS PIECES
BALLAST CURBS.		42	C3	***************************************
BALLAST DEPTH	13	43	B	
UALKWAYS (L/R/B/C)		44	NA.	***************************************
HANDRAILS (L/R/B)		45	AK	
REFUGE BAYS/NO	•	46	NA	

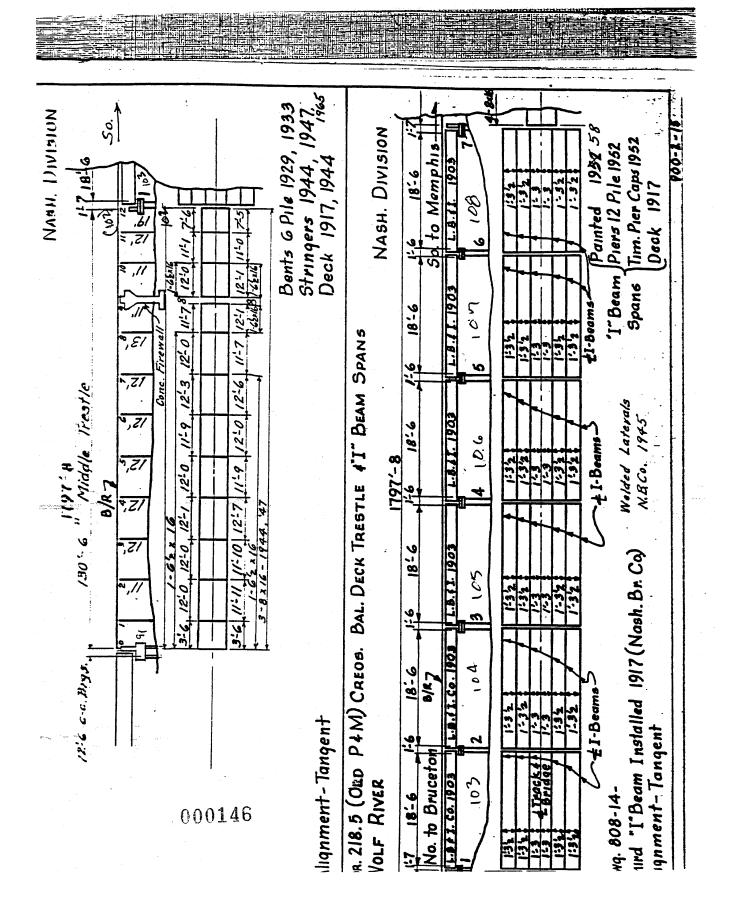
## BRIDGE INSPECTION SUPPLEMENT

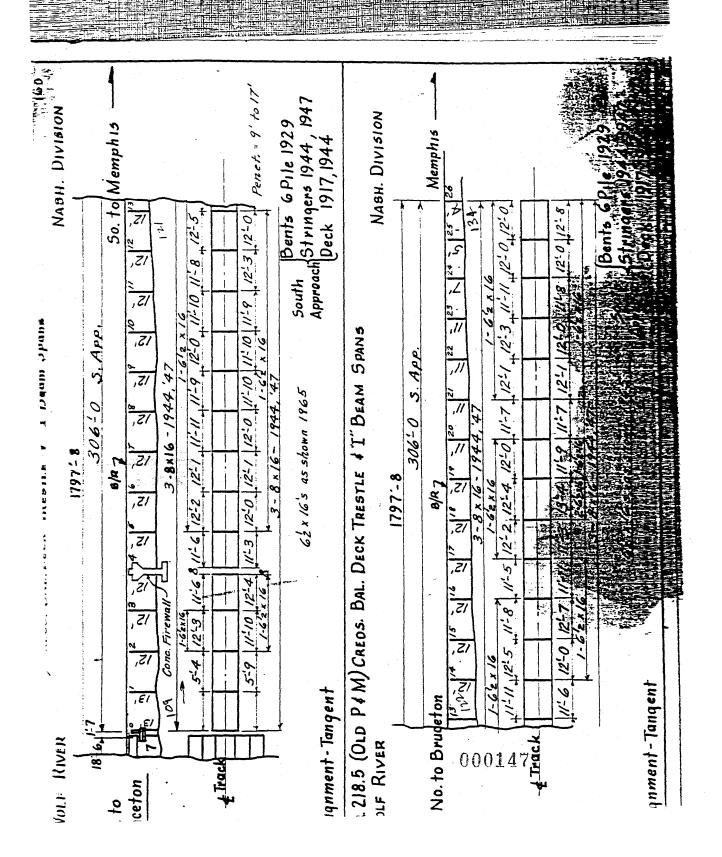
	REF	IX: ONI TION: D	HILEPOST: 218.50 BRIDGE NUMBER: 218.5 ISTRICT: DIVISION: NS SUBDIVISION: HEMPHIS TERMINAL
	X 1	C	OUNTY: SHELBY TOWN: AULON ST: TH
;	PAR	5: 1	THRU 87 OF 134 SPAN TYPES: 75 LENGTH: 1044.00 OF 1794 CROSSING: WOLF RIVER ROAD NAME:
			TED: 01/09/01 INSPECTOR: H. L. SHITH HOW INSPECTED: VI
			NSPECTED NO CLASS REMARKS
	TEK		
	NO	CLASS	REMARKS
	28	Ci	REJECT PILES: BT.3 P-4,5,6; BT.4 P-1;
	28	CI	BT.5 P-1,6; BT.8 P-6; BT.14 P-1,2; BT.38 P-5; BT.40 P-2;
			DT.41 P-4; BT.83 P-1; BT.86 P-3; BT.92 P-3; BT.123 P-2
			NUMEROUS PILES HAVE HEAVY DEACY AT GOUNDLINE, WILL NEED TO BE POSTO
			SOON, AS MANY AS 170 PILES ARE ROTTEN AND OR HAVE NUMEROUS VOIDS. NE
			TO SCHEDULE THIS BRIDGE FOR REBUILD.
			CAPS: BT.12 SPLITTING; BT.18 SPLIT; BT.26 SPLIT; BT.91 ROTTEN;
	29		BT98 ÇRUSHED



NASH. DIVISION	1797-8	1046 1"	B/R2	10 32 0 34 0 35 0 36 0 37 0 38 0 39 40 41 0 43 0 44 0 10 10 10 10 10 10 10 10 10 10 10 10 1	4-8×16	1.9 12.4 12.1 12.3 11.9 12.0 12.1 12.0 12.1 12.4 8 11.1 12.4 11.8 12.2	1-21 1-21 6-11 9-01 2-10 1-21 0-21 01-11 2-21 1-21 11-11 11-21 11-21 11-21 11-21 11-21 11-21	Bents 6 Pile 1929, 1933 Stringers 1944, 1947	1) CREOS. BAL. DECK TRESTLE & "I" BEAM SPANS		1046=1" N. App.	8/RZ So. to M	9. 80 0 81	4-8×16	11-11-0-21-0-21-5-21	-11 12-6 11-8 12-6 12-0 11-11 11-10 12-2 12-2 11-10 11+9 12-5 11-10 12-0	Bents 6P	Stringers 1944, 1947
( ) ( )			to Bruceton	32, 10,		15-71	11 8-21 1-21 01-11 8-81 0-21 0	nment - Tangent	LD P(M) CR	F RIVER		Druceton	,// <b>5</b> ,0/		21 0-21 8-11 0-21 1-21 1-	8-,//		ment - Tangent



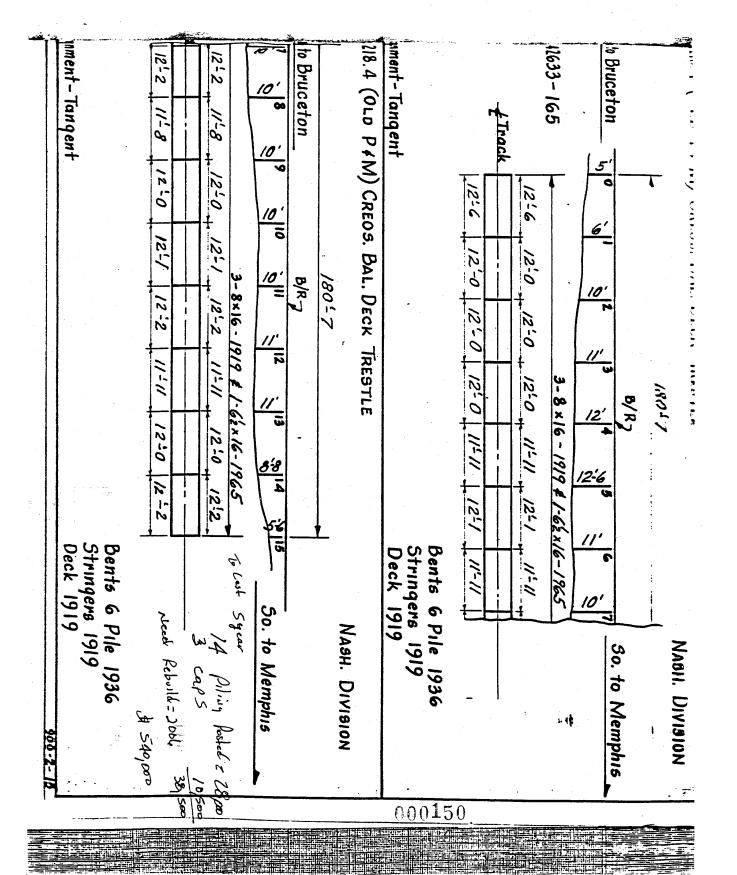




## TIMBER BRIDGE INSPECTION REPORT

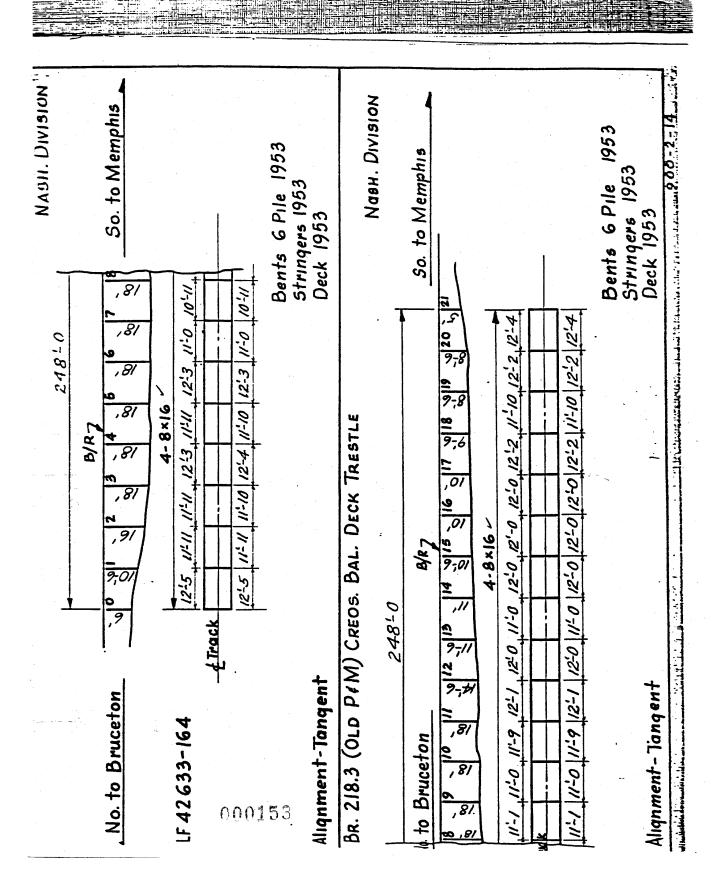
PREFIX: ONI M. LOCATION: DISTRICT COUNTY: 9 SPANS: 1 THRU 15 NO. TRACKS: 1 CROS	: DIV SHELBY 5 OF 15 SI SSING: CREC	ZISIC Pan 1 Ek	)N: NS TYPES:	SUBI TOWN: ( TS	OIVISIO CORDOVA ROAD	ON: 1 A LI NAME:	KEMPH ENGTH	: 18	ST: 30.00	TN	180
DATE INSPECTED: 01/	voavoř.	TWSt	MECTUR:	r) . t	pullu			nuw	714531.6		A.T.
	- 1				•						
TTEM INSPECTE	סא מ	CLAS	3\$			REMA	NRKS.				
GENERAL	· · · · · · · · · · · · · · · · · · ·										
CHANNEL CONDITION	. t 2	Β	BUSHES								
SLOPES GENERAL CLEAN MCI,SPRINT,LIGHTNE	. 3	13	BUSHES								
TRACK			•								
CWR (YZN)	N 5		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,			: 				
APPROACH - SURF/ALL BRIDGE - SURF/ALL	6 KDI	13		IENT/SUI							
TRACK - RAIL ANCHO	JRS 8	В				•					
BOLTS - % EFFECT						•					
CLIPS - % EFFECT	11										
HOOKS - % EFFECT		NA									
TIES-COND & YR INSI			TRACK			**	,				•
TIE PADS OUTER GUARD RAIL	14										
INNER GUARD RAIL			***************************************								
RAIL	115 17	В	************								
PIERS, ABUTMEN	418*	in kang Kal							-		
er military A T T Fig.)	160	r i									1
FOUNDATION ABUTHENTS	18 19						***********				43 Pt
ABUTMENTS PIERS / BRIDGE SEATS	20	NA.									1 36
BRIDGE SCATS	21	Ci	CAPS		2 M. L.						
BACK WALLS	- 22			Account to the							
UING UALLS	23	NA :									
MUD SILLS/BLOCKS	24	NA .									
BENTS, PILES	3. A 17 (1) A 17 (2) A 17 (										
FRAMED/DRIVEN	D 25				· · · · · · · · · · · · · · · · · · ·						
POSTS OR PILE/BENT	6 26										
COLUMNS/POSTS											
Pires	IM 58	CI	HEAVY	DECAY A	91 U/L 7271 '''	, 507 Desi	TE NE	יים איני דיני	JOILU MMUU	, CHEC	Y TL
BENT CAPS SLIP CAPS SASH/GIRTS	TC 29	NV	CZOI M	ORE DE	IGHTNG	יונים אל יו היים אינים	en e El e	្នៈ សភា ទ	1. HV.	rch 4	7.811
CAGUZGI PIG	31	NA S	(29) D	LOSELY	OTHER	S C-:		U 15W1		· · · · · · · · · · · ·	
TRANSVERSE BRACING	32	C3			다. 동네는						
LONGITUDINAL BRACIA	1G 33	NA .	7		7.10						Legilor.
	마셔 선명화 강영 전기부족이다	计作品 套件	3 数 3 4			4.7		· · · · · · · · · · · · · · · · · · ·			/s

CAP BLOCKS/STEEL SPANS BOLTS/DOWELS/LAG SCREWS OSMOSE/DATE MOVEMENT UNDER LOAD	34 NA 35 CS 36 37 NA	
DECK	<del></del>	
STRINGERS/NO 11 CORBELS/HEIGHT	38 C1 39 NA 40 NA	HEAVY BECAY
ELEVATION BLOCK/HT BALLAST DECK TM BALLAST CURBS	41 Ci 42 Ci	HEAVY DECAY HEAVY DECAY
BALLAST DEPTH 12 WALKWAYS (L/R/B/C) HANDRAILS (L/R/B) REFUGE BAYS/NO	43 B 44 NA 45 NA 46 NA	



COUNTY: SHELBY  SPANS: 1 THRU 21 OF 21 SPAN  NO TRACKS! 1 CROSSING: CREEK	BRIDGE NUMBER: 218.3 ON: NS SUBDIVISION: MEMPHIS TERMINAL TOWN: CORDOVA ST: TN TYPES: TS LENGTH: 252.00 OF 252 ROAD NAME: PECTOR: M. L. SMITH HOW INSPECTED: VI
ITEM INSPECTED NO CLA	REMARKS
GENERAL	
CHANNEL CONDITION 1 B SLOPES 2 B GENERAL CLEAN 3 B MCI,SPRINT,LIGHTNET,ETC. 4 NA	ALWAYS SWAMPY WATER CONDITIONS NEED RETAINING WALL ON N.END SMALL TREES-BUSHES
TRACK	
CWR (Y/N) N 5 APPROACH - SURF/ALIGN 6 B BRIDGE - SURF/ALIGN 7 B TRACK - RAIL ANCHORS 8 B BRIDGE - RAIL ANCHORS 9 B BOLTS - X EFFECT 10 B CLIPS - X EFFECT 11 NA HOOKS - X EFFECT 12 NA TIES-COND & YR INSTALLED 13 B TIE PADS 14 NA OUTER GUARD RAIL 15 NA INNER GUARD RAIL 15 NA RAIL 115 17 B  FOUNDATION 18 C1 ABUTMENTS 19 NA BRIDGE SEATS 20 NA BRIDGE SEATS 21 C1 BACK WALLS 22 C3	
BACK WALLS 22 C3 WING WALLS MUD SILLS/BLOCKS 24 NA	NORTH END NEEDS REPAIR
FRAMED/DRIVEN D 25 POSTS OR PILE/BENT 6 26 COLUMNS/POSTS B 27 NA PILES TM 28 C1 BENT CAPS TC 29 C1 SITE-CAPS 30 NA	REPLACE NOW: BT.2 P-3; BT.4 P-3,5; BT.7 P-1,5 BT.9 P-1,2,3;(BT.14 P-3,5; BT.15 P-6; AS MANY (28) 50 PILES TO POST IN THIS BRIDGE RECCOMEND TO PROGRAM REBUILD 7 CAPS C-1 CONDITION, OTHERS C-3
SASH/GIRTS 31 NA TRANSVERSE BRACING 32 C1 LONGITUDINAL BRACING 33 NA	DECAY AND ROT BAD AT WATER LINE AND BELOW

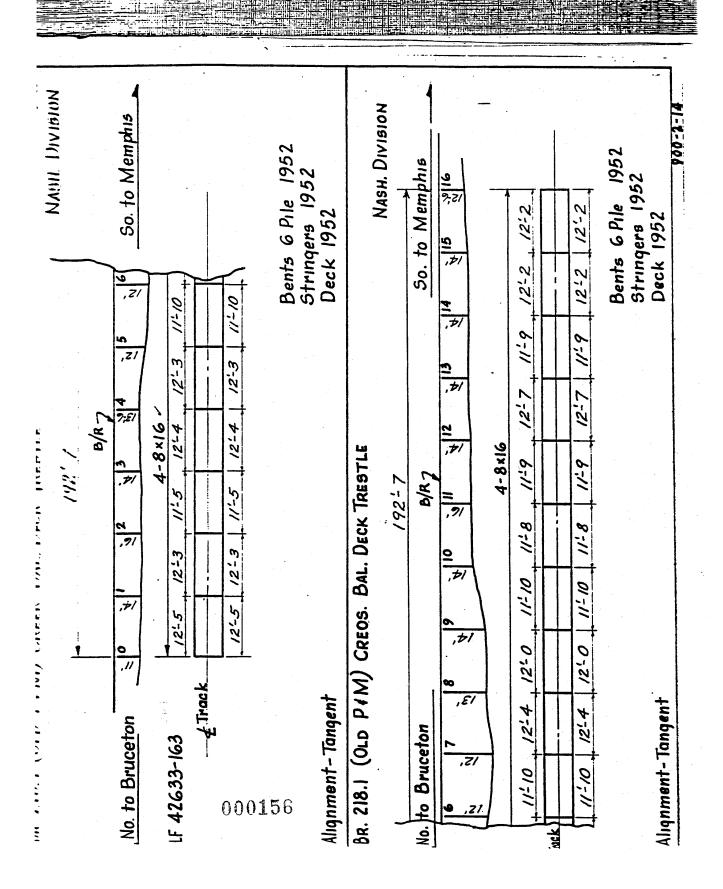
			The state of the s				
CAP BLOCKS/STEEL SPANS		NA		******			
BOLTS/DOWELS/LAG SCREWS	35	C5		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
OSMOSE/DATE	3,6		***********				
MOVEMENT UNDER LOAD	37	NA.					
						*	
DECK			*				
STRINGERS/NO 11	. 38	C3	SOME DECAY,	NEED TO	WATCH		•
CORBELS/HEIGHT	39	NA ·	***********************				
ELEVATION BLOCK/HT	. 40	NA					
BALLAST DECK TM	41	C 1					
BALLAST CURBS	.42	CG					
BALLAST DEPTH 12	43	· B					
WALKWAYS (L/R/B/C)	44	NA	,				
HANDRAILS (L/R/B)	45	NA .					
REFUGE BAYS/NO	46	NA	***************************************				



### TIMBER BRIDGE INSPECTION REPORT

LOCATION: DISTRICT:	DIVISI	10 BRIDGE NUMBER: 218.1 ION: NS SUBDIVISION: MEMPHIS TERMINAL TOWN: CORDOVA ST: TN
SPANS: 1 THRU 16 OF	16 SPAN: COEEV	TYPES: TS LENGTH: 192.00 UF 192
DATE INSPECTED: 01/09/01	INS	SPECTOR: H. L. SHITH HOW INSPECTED: IT
:		
ITEM INSPECTED	NO CLA	SS RENARKS
GENERAL		
CHANNEL CONDITION	1 8	TREES-BUSHES
CI OPES	2 B	SAME
SLOPES GENERAL CLEAN NCI,SPRINT,LIGHTNET,ETC.	3 B	SAME
NCT .SPRINT .LIGHTNET .ETC.	4 NA	
The for Name (		
TRACK		
CUR (Y/N) N	5	***************************************
APPROACH - SURF/ALIGN	6 B	
BRIDGE - SURF/ALIGN	7 B	
TRACK - RAIL ANCHORS	-8 B	***************************************
BRIDGE - RAIL ANCHORS BOLTS - X EFFECT	9 B	***************************************
BOLTS - X EFFECT	10 B	· · · · · · · · · · · · · · · · · · ·
CLIPS - X EFFECT	11 NA	***************************************
onnve' _ ♥ ECEECT	12. 84	
THE STATE OF THE SALES	12.0	TDACY
TIE PAOS	14 NA	1
DUTER GUARD RAIL	15 NA	The state of the s
INNER GUARD RAIL	16 NA	
RAIL 115	17 B	
		통계하는 기가 는 그는 보고 있다. 이 그는 기급이 가급하게 되었다. 남편이 그렇게 목표하는 목표하다.
FOUNDATION	18 Ci	
ABUTNENTS 2	19 NA	[1] 15 15 15 15 15 15 15 15 15 15 15 15 15
PIERS	20 NA	是一种是"And And And And And And And And And And
BRIDGE SEATS	21 C1	REPLACE NUMEROUS CAPS
BACK WALLS	-22 C3	SONE ROT/DECAY
UING VALLS	23 NA	
KUD SILLS/BLOCKS	24 NA	REPLACE MIMEROUS CAPS SOME RUT/DECAY
BENTS, PILES	- 199	
FRAMED/DRIVEN D	25 24	REPLACE NON: BT.2 P-3; BT.7 P-1; BT.8 P-5;
POSTS OR PILE/BENT 6	26	BT.9 P-3; BT.11 P-1 NUMEROUS OTHERS NEED
COLUMNS/POSTS B		(28) NEED POSTED, HEAVY DECAY
ILES THE		POST PILE 2,BENT 0-PILE 6,BENT 16
DENT CAPS TC		REPLACE VARIOUS CAPS
GLIP CAPS	30 NA	
SASH/GIRTS	31 NA	建铁铁铁铁铁铁 化双氯化铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁铁
RANSVERSE BRACING	32 C3	是是10年的身份的现在形式的原则是10年的人的。
ONGITUDINAL BRACING	33 NA	
	SHE HALL	Market transfer and the contract that is proved in a fact to the state of the contract of the state of the contract of

CAP BLOCKS/STEEL SPANS BOLTS/DOUGLS/LAG SCREUS DSHOSE/DATE BOUGHENT UNDER LOAD	34 NA 35 C5 36 37 NA						
DECK							
STRINGERS/NO 11 CORBELS/HEIGHT ELEVATION BLOCK/HT	38 C3 39 NA 40 NA	WATCH AS THEY ARE OLDSOME DECAY					
BALLAST DECK TH BALLAST CURBS	41 C3 42 C3	TIMBER IS OLD, WILL NEED TO REPLACE SOON					
BALLAST DEPTH 14 UALKUAYS (L/R/B/C) HANDRATES (E/R/B)	43 B 44 NA 45 NA						
REFUGE BAYS/NO	46 NA						



TIMBER	BRIDGE INSPECTION REPORT
LOCATION: DISTRICT: DIVIS COUNTY: SHELBY SPANS: 1 THRU 6 OF 6 SPAN NO. TRACKS: 1 CROSSING: CREEX	.90 BRIDGE NUMBER: 214.9 ION: NS SUBDIVISION: MEMPHIS TERMINAL TOWN: CORDOVA ST: TN TYPES: TS LENGTH: 72.00 OF 72 ROAD NAME: SPECTOR: N. L. SHITH HOW INSPECTED: VI
area supported NO EL	ACC DEMADVO
ITEM INSPECTED NO CL	naa nuinnaa
GENERAL	
ACI, SPRINI, LIGHTNET, ETC. 4 NR	TREES-BUSHES LITE DRIFT STEEP SAME AS \$ 1
TRACK	
CUR (Y/N) N 5 APPROACH - SURF/ALIGN 6 B BRIDGE - SURF/ALIGN 7 B	***************************************
TRACK - RAIL ANCHORS 8 B BRIDGE - RAIL ANCHORS 9 B	
BOLTS - X EFFECT 10 B	
CLIPS - X EFFECT 11 NA HOOKS - X EFFECT 12 NA TIES-COND & YR INSTALLED 13 C1	
TIES-COND & YR INSTALLED 13 C1	TRACK TIES
TIE PADS 14 NA OUTER GUARD RAIL 15 NA INNER GUARD RAIL 16 NA	
INNER GUARD RAIL 16 NA	
RAIL 115 17 B	
PIERS, ABUTHENTS	
FOUNDATION 18 C5	
ABUTHENTS 19 CS	
BRIDGE SEATS 21 C5	ner in the state of the state o
BACK WALLS 22 C1	BALLAST LEAK-ROTTED TIMBERS
NUD SILLS/BLOCKS 24 NA	The transfer of the second second
	BALLAST LEAK-ROTTED TIMBERS
FRAMED/DRIVEN D 25	
COLUMNS/POSTS B 27 NA	HEAVY DECAY AND MANY HOLLOW PILES
PILES TN 28 CI BENT CAPS TC 29 CI	HEAVY DECAY AND MANY HOLLOW PILES
SLIP CAPS 30 NA	
SASR/GIRTS 31 NA TRANSVERSE BRACING 32 CI	ROT/SPLIT AT ENDS
LONGITUDINAL BRACING 53 NA	
为 <b>证据的证据</b>	

EXHIBIT F

CÁP BLOCKS/STEEL SPANS BOLTS/DOUCLS/LAG SCREUS	35	KA C5	
USHOSE/DATE MOVEMENT UNDER LOAD	36 37	NA	
DECK		•	
STRINGERS/NO 11	38	CI	HEACY DETERIORATION
CORBELS/HEIGHT	• •	ХA	
ELEVATION BLOCK/HT		ΝA	
BALLAST DECK TH		Ci	BALLAST LEAKS-ALL DECKBOARDS DETERIOATED BAD
BALLAST CURBS		CŤ	**************************************
BALLAST DEPTH 12	43	-	######################################
UALXUAYS (L/R/B/C)		NA	
HANDRAILS (L/R/B)		NA	
REFUGE BAYS/NO P &k25 &180 &110	46	МĄ	

JOBID: 4268591

USERID: D6921

FORM: LANDSCAP

FORM CODE: 1

TITLE: Invoice Register

ROOM/BIN: TEAM\_ENTERPRISE

Print Date: 05/25/01

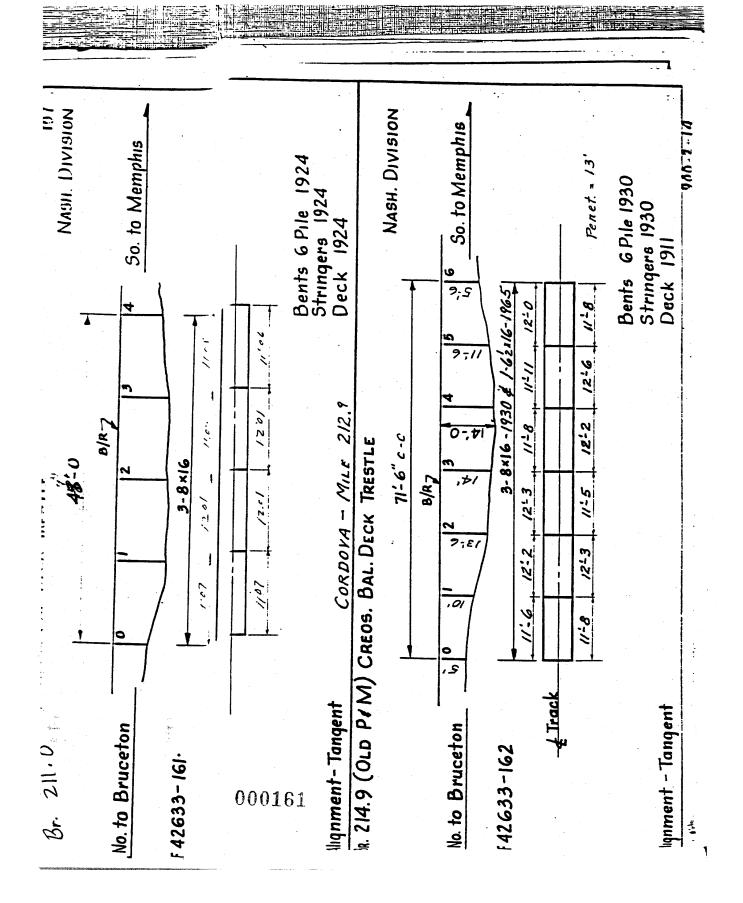
Print Time: 10:50:07

### TIMBER BRIDGE INSPECTION REPORT

LOCATION: DISTRICT: COUNTY: SHELBY SPANS: 1 THRU 4 OF NO. TRACKS: 1 CROSSING:	DIVISI 4 SPAN CREEK	OO BRIDGE NUMBER: 211 DN: NS SUBDIVISION: MEMPHIS TERMINAL TOWN: CORDOVA ST: TN TYPES: TS LENGTH: 48.00 DF 48 ROAD NAME: PECTOR: H. L. SMITH HOW INSPECTED: VI
ITEM INSPECTED	NO CLA	SS REMARKS
GENERAL	•	
CHANNEL CONDITION SLOPES GENERAL CLEAN MCI,SPRINT,LIGHTNET,ETC.	1 D 2 C1 3 B 4 NA	BAD WASH N.END ****BRIDGE OUT OF SERVICE**** SANE AS ABOVE TRASH REMOVE RAIL FROM S.END
TRACK	•	
APPROACH - SURF/ALIGN BRIDGE - SURF/ALIGN TRACK - RAIL ANCHORS BRIDGE - RAIL ANCHORS BOLTS - X EFFECT CLIPS - X EFFECT MOOXS - X EFFECT TIES-COND & YR INSTALLED TIE PAOS OUTER GUARD RAIL TINER GUARD RAIL RAIL LIS PIERS, ABUTHENTS	6 B 7 B 8 B 9 B 10 B 11 NA 12 NA 13 C1 14 C1 15 NA 16 NA 17 B	
FOUNDATION ABUTHENTS PIERS +	18 C5 19 C5 20 NA	REPLACE CAPS NEED REPAIR-WASH BOTH ENDS BEHIND HEADWALL 22INGED RIP-RAP
ORIDGE SEATS	21 C1	REPLACE CAPS
BACK WALLS	22 Ci	NEED REPAIR-WASH BOTH ENDS, BEHIND HEADWALL
VING WALLS	23 NA 24 NA	ZZINCEU RIP-RAP
BENTS, PILES		
RAMED/DRIVEN D	25	基本的 建铅铁器器器 医马斯克氏性外丛性
POSTS OR PILE/BENT 6		<b>建设的工程等的工程等的工程。</b>
	27 NA	
PILES TH	28 C1	HEAVY DECAY, NEED TO POST APPROX, 50% OF PILES
ENT CAPS TO	29. C1	REPLACE CAP BENT 1,2,AND 4 NOV
iltp caps asil/girts	30 NA .	
RANSVERSE BRACING	32 C5	
ONGITUDINAL BRACING	time in 1884 Mr. Stranger	free transport of the control of the
		000159

000158

CAP BLOCKS/STEEL SPANS BOLTS/BOUCLS/LAG SCREWS DSMOSE/DATE	35 36	CS NA NA	
MOVEMENT UNDER LOAD	. 37	1137	
DECK			
STRINGERS/NO 11 CORBELS/HEIGHT ELEVATION BLOCK/HT		D AM AM	3 UNDER EACH RAIL-BAD DECAY AT BEARING OVER CAP 38)SPLIT, ROTTEN
BALLAST DECX TH BALLAST CURBS		C1 C1	DECAY THROUGHOUT NEEDS REPLACING
BALLAST DEPTH 12 UALKWAYS (L/R/B/C) HANDRAILS (L/R/B)		a Na Na	
PERIOR RAYS/NO	46	NA	



## EXHIBIT F

### VERIFIED STATEMENT OF

### DONNIE MOORE

My name is Donnie Moore and I am currently employed as a Trainmaster for CSX Transportation, Inc. ("CSXT"), 1493 Holmes St., Memphis, Tennessee, 38108. My duties include supervising the general operations and customer switching on the CSXT Memphis Subdivision, including the Cordova Branch. I began my railroad career with CSXT in 1995 as a Yardmaster based in Nashville. In March, 1998, I moved to Bruceton, TN and served in the capacity of Assistant Trainmaster. I was promoted to Trainmaster in January, 2000.

There were two active customers on the 12.24-mile railroad line between Cordova, milepost ONI 210.66, and East of Memphis, TN, milepost ONI 222.9, in the Midwest Region, Nashville Division (the "Line"), the line sought to be discontinued in this proceeding. The customers are Edmonds Materials ("Edmonds"), and Whittington Lumber ("Whittington") (collectively the "Customers"). I am familiar with the operational issues associated with service to the Customers. Providing service to the Customers on the Line is cumbersome because of the need for the trains, which depart from and arrive at Leewood Yard, to cross the heavily-utilized CNIC/CSXT double main line between Memphis and Aulon. Additionally, the Line is classified as excepted track and, as such, speeds are restricted to 10 miles per hour.

Due to the condition of the first bridge on the line, an embargo was put into effect as of March 1, 2001. The explanations below describe the typical operation prior to implementation of the embargo.

Edmonds and Whittington are located near the end of the line and typically were served once a week by a three-person crew operating Local M795. It generally takes the crew between 6 and 8 hours to complete the round trip to and from Leewood Yard. Leewood Yard is located on CSXT's main line between Memphis and Bruceton, TN. Generally, the crew pulls the cars from Leewood Yard and waits for clearance to enter the double main. The crew must seek permission to enter the CSXT-owned portion of the CNIC double main line in order to proceed the short distance to the switch at Aulon. Due to the heavy traffic (approximately 30 CNIC trains per day plus 10 CSXT trains) along the double main line, CSXT crews are often required to wait to proceed onto the double main. After gaining the requested access, the crew pulls the cars along the double main, through the Aulon crossover to the Southside track in order to run around the train and pull the cars through the diamond at Aulon, across the double main and down to the end of the Cordova Branch to serve Edmonds. Once at Edmonds, the crew is required to perform a cumbersome static drop switch move. After providing service to Edmonds, the crew proceeds to serve Whittington and then the crew typically pulls the cars through the diamond over the double main and then shoves the train back over the double main after receiving clearance to proceed to Leewood Yard. Occasionally, based on the availability of the Southside track adjacent to the CSXT 103 track, a CSXT crew could place the train on such track, perform a run around move and proceed to pull the cars back to Leewood Yard. Occasionally, the crews are unable to utilize the Southside track and are required to shove the cars back to Leewood Yard.

The above-described moves are awkward and time-consuming from an operational perspective.

### VERIFICATION

I, Donnie Moore verify under penalty of perjury under the laws of the United States that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed March 21, 2002.

Donnie Moore

## EXHIBIT G

#### Ms. N. Rosenberg - J150

RE: TN-12 – CSXT Proposed Abandonment, Midwest Region, Nashville Division, Memphis Terminal, from Milepost 0NI-210.66 near Cordova to Milepost 0NI-224.00, near Memphis in Shelby County, Tennessee, a distance of 13.34 miles. STB Docket No. AB-55 (Sub-No. 590X)

In preparation for filing a Petition for Exemption on the above-referenced line segment, listed below are the carloads handled over the line for the years 1999, 2000, and 2001 year-to-date:

			CA	RLOAD	os
<u>PATRON</u>	<u>STATION</u>	COMMODITY	1999		2001 (ytd)
Bolen Brunson Bell Mr. Bob Bell Bellwood Reload 3175 Johnson Avenue Memphis, TN 38112	Memphis	Lumber	134	198	33
Edmonds Material Mr. Jerry Edmonds Edmonds Material, Inc. 9400 Macon Road Cordova, TN 38018	Cordova	Brick	414	235	10
Memphis Gas Light & Water Mr. Tommy Shropshire Traffic Manager Tennessee Valley Authority 1101 Market Street Chattanooga, TN 37402	Cordova	Transformers	0	1	0
Whittington Lumber Mr. Jimmy Whittington Jimmy Whittington Lumber Co. 9045 Macon Road Cordova, TN 38018	Cordova	Lumber	41	38	1

An embargo was placed on the rail line that serves the above four customers in March, 2001, citing unsafe bridge conditions. Non-rail transportation options available to the customers include motor carriers that serve the area. In addition, rail loading and unloading facilities are available at CSXT's Leewood Yard in Memphis.

There are no defense installations served by this line or in the immediate vicinity.

Noel L. Perry

Director

**CSXT Sales & Marketing** 

## EXHIBIT H





DR. WILLIE W. HERENTON - Mayor RICK MASSON-Chief Administrative Officer DIVISION OF ENGINEERING JOHN F. CONROY - City Engineer

June 15, 2001

Mr. James Derwin (J-200) CSX Transportation Inc. 500 Water Street Jacksonville, FL 32202

Re: Abandonment of Rail Line Between Memphis and Cordova, Tn

Dear Mr. Derwin:

We have been advised that CSX is considering the abandonment of 13.34 miles of rail line between Memphis and Cordova, Tennessee. Virtually the entire length of rail being considered for abandonment is with the Memphis City limits and we are very interested in and supportive of the potential abandonment.

We are supportive for a number of reasons. The greatest benefit, from our perspective, is one of increased safety resulting from the elimination of multiple grade crossings, some of which are at acute angles. Another positive impact will be the increased continuity of some major roads, which now have offsets in their alignment because of the difficulty involved in trying to cross the line. Finally, the abandonment and relinquishing of the right-of-way would help greatly in keeping an important road improvement project from impacting a major park.

We believe the abandonment provides significant improvement in safety, traffic issues, and overall quality of life in that area and encourage you to expeditiously proceed. It is understood that you may include this letter in your filing to the Surface Transportation Board regarding the abandonment.

Sincerely,

John Conroy, P.E.

City Engineer

c: Wain Gaskins, Administrator of Transportation Planning and Design

000169





Jim Rout, Mayor

July 2, 2001

Mr. James Derwin (J-200) CSX Transportation, Inc. 500 Water Street Jacksonville, FL 32202

RE: Abandonment of Rail Line Between Memphis and Cordova, TN

Dear Mr. Derwin:

I have been advised by my Office of Planning and Development for Shelby County that CSX Transportation, Inc. is considering abandonment of 13.34 miles of its rail between Cordova and Memphis in Shelby County, Tennessee. We have coordinated with City officials and are supportive in this action for the same reasons listed in their letter to your office dated June 15, 2001 subject as referenced above. From the County viewpoint, the abandonment and relinquishing of the right of way will greatly assist the County in improving and significantly lessening impacts of a major road improvement.

We also believe the abandonment provides a significant enhancement in safety, traffic issues, and overall quality of life in that significant park area and encourage you to proceed as expeditiously as possible. We understand that you will include this letter in your filing to the Surface Transportation Board regarding the planned abandonment.

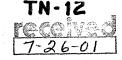
Sincerely,

√im∕Rout Mayor

CC: Louise Mercuro, Office of Planning and Development

Ted Fox, Director of Public Works

John Conroy, City Engineer Mike Oakes, County Engineer



### **EDMONDS MATERIALS**

9400 MACON RD CORDOVA, TN 38018 (901) 755-9400 FAX: (901) 755-6502

July 23, 2001

CSXT Mr. Jim Derwin 500 Water St. J200 Jacksonville, FL 32202

Dear Jim:

Enclosed please find a copy of the letter which I sent to the Surface Transportation Board today. I should end any inquiry which I had.

Thank you for your assistance during a difficult process. Please call on me when I can be of assistance during the abandonment process. I would appreciate being kept abreast of the progress of the abandonment, especially the status of the dinner train.

Please call on me in the future at any time if I may be of assistance.

Sincerely,

Jerry L. Edmonds

President

### **EDMONDS MATERIALS**

### 9400 MACON RD CORDOVA, TN 38016

(901) 755-9400 FAX: (901) 755-6502

July 23, 2001

Mr. Larry Herzig Surface Transportation Board Washington, DC Fax: (202) 565-9011

Dear Mr. Herzig:

Since my letter to you dated March 26, 2001, the CSXT and I have been working to resolve any questions that I had concerning the embargo placed on the Cordova Branch of the CSXT. To that end, we have resolved any problems that I had with the embargo. I now believe that the embargo is reasonable, mater of fact, necessary for the safety of rail crews and the public. Also, the CSXT has been working with me to ease any complications which may occur resulting from the abandonment of the Cordova Branch.

Therefore, I wish to withdraw my complaint dated March 26, 2001. I concur with the embargo and will support the abandonment at the proper time.

Let me commend the CSXT on their efforts in resolving any problems or questions which we had. Edmonds Materials has been a customer of the CSXT since 1968. We hate to see that relationship end, but I am now satisfied that the railroad has no reasonable alternative but to take the actions which they have.

Thank you for your assistance in this matter.

Sincerely,

Jerry L. Edmonds President.

### **EXHIBIT I**

### DOCKET NO. AB-55 (Sub-No. 615X)

# CSX TRANSPORTATION, INC. --DISCONTINUANCE EXEMPTION-(BETWEEN EAST OF MEMPHIS AND CORDOVA) IN SHELBY COUNTY, TENNESSEE

Notice of Petition for Exemption to Discontinue Service

On March 29, 2002 CSX Transportation, Inc., filed with the Surface Transportation

Board, Washington, D.C. 20423, a petition for exemption for the discontinuance of service on a line of railroad known as the East of Memphis to Cordova Branch, extending from railroad milepost ONI 222.9 east of Memphis, TN to railroad milepost ONI 210.66 near Cordova, TN, the end of the line, which traverses through 38111, 38112, 38117, 38120, 38122, and 38018, United States Postal Service ZIP Codes, a distance of 12.24 miles, in Shelby County, TN. The line for which the discontinuance exemption request was filed includes the station of Cordova at milepost ONI 210.66.

The line does not contain federally granted rights-of-way. Any documentation in the railroad's possession will be made available promptly to those requesting it.

The interest of railroad employees will be protected by *Oregon Short Line R. Co.—Abandonment—Goshen*, 360 I.C.C. 91 (1979).

Any offer of financial assistance will be due no later than 10 days after service of a decision granting the petition for exemption.

Persons seeking further information concerning discontinuance procedures may contact the Surface Transportation Board or refer to the full discontinuance regulations at 49 CFR part 1152. Questions concerning environmental issues may be directed to the Board's Section of Environmental Analysis.

An environmental assessment (EA) was prepared by the Section of Environmental Analysis ("SEA") in Docket No. AB-55 (Sub-No. 590X), CSX Transportation, Inc.—

Abandonment Exemption—(Between Memphis and Cordova) in Shelby County, TN, and served on October 23, 2001 upon all parties of record in that proceeding and upon any agencies or other persons who commented during its preparation. Any other persons who would like to obtain a copy of the EA may contact the Section of Environmental Analysis. The EA included the Line in its analysis, and because the EA is less than one year old SEA has adopted the EA in this proceeding.

## EXHIBIT J

### **CERTIFICATION**

I, Louis E. Gitomer certify that on March 28, 2002, CSX Transportation, Inc., in Docket No. AB-55 (Sub-No.615X) has published in a newspaper of general circulation in each county through which the line passes a notice that alerts the public to the proposed discontinuance of service, to available reuse alternatives, and to how it may participate in the Surface Transportation Board proceeding.

Louis E. Gitomer March 29, 2002

## EXHIBIT K

### **CERTIFICATE OF SERVICE**

Pursuant To 49 CFR §1152.60(d), the undersigned hereby certifies that the Petition for Exemption in Docket No. AB-55 (Sub-No. 615X), CSX Transportation, Inc. --Discontinuance Exemption--(Between East of Memphis And Cordova) in Shelby County, Tennessee was mailed via first class mail, postage prepaid, on March 29, 2002, to the following parties:

### **State Public Service Commission**

Transportation Department 700 James K. Polk Building Nashville, TN 37243-0349

Regulatory Authority 460 James Robertson Parkway Nashville, TN 37243-0505

### **Military Traffic Management Command**

MTMCTEA ATTN: Railroads for National Defense 720 Thimble Shoals Blvd. Suite 130 Newport News, VA 23606-2574

### **National Park Service**

Mr. Tom Ross Chief of National Recreation and Trails U.S. Department of Interior - National Park Service Recreation Resources Assistance Division P.O. Box 37127 Washington, DC 20013-7127

U.S. Department of Interior National Park Service Land Resources Division 800 North Capitol St., N.E. Room 540 Washington, DC 20002

### U.S. Department of Agriculture

U.S. Department of Agriculture Chief of the Forest Service 4<sup>th</sup> Floor, NW Sidney R. Yates Building 201 14<sup>th</sup> Street, S.W. Washington, DC 20250

### Customers

Mr. Jerry Edmonds Edmonds Materials, Inc. 9400 Macon Road Cordova, TN 38018

Mr. Tommy Shropshire Traffic Manager Tennessee Valley Authority Memphis Gas Light & Water 1101 Market Street Chattanooga, TN 37402

Mr. Jimmy Whittington Jimmy Whittington Lumber Co. 9045 Macon Road Cordova, TN 38018

> Louis E. Gitomer March 29, 2002